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ABSTRACT

Building upon four previous planning documents for computing at College of DuPage in Illinois, this plan for fiscal year 1995 (FY95) provides a starting point for future plans to address all activities that relate to the use of information technology on campus. The FY95 "Information Technology Plan" is divided into six sections, each providing an overview, definition, and lists of major issues, goals, and recommendations. The sections of the report focus on: (1) the planning process, which describes four surveys (i.e., the Student, Faculty, Administrative Departmental, and Academic Departmental Surveys) used to gather information on the college's computing needs; (2) academic computing, including information on student and faculty computer usage, the equipment in student labs, and faculty and student recommendations; (3) administrative computing, including the information processing services of payroll, personnel, general ledger, accounts payable and receivable, purchasing, student registration and records, financial aid, inventory, word processing, and management information system; (4) central computing, including centralized support for hardware, software, and staffing in mainframe and departmental computing and support for the campuswide data networks supporting academic and administrative computing; (5) telecommunications, which describes a proposed system to improve voice, video, and data communications on campus; and (6) financial considerations, which estimates the cost of each recommendation in the previous sections, excluding the telecommunications plan. The bulk of the report consists of appendixes which include additional information on the college and the planning process, a list of the college's academic computing labs, a catalog of administrative applications, a list of department requested applications, and a financial worksheet. (KP)

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ED 370 615

Information Technology Plan

FY95

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College of DuPage

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College of DuPage

Information Technology Plan

Fiscal Year 1994-95

March 1, 1994

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INTRODUCTION

Overview

The College of DuPage has generated four detailed planning documents for computing over the last eight years. They include the *"FY88-90 Institutional Plan for Computing", "FY89-91 Institutional Plan for Computing", "FY91-93 Institutional Plan for Computing" and the "FY93-95 Institutional Plan for Computing".* The documents have served the institution in providing a strategic direction and a justification for the resources in the use of computing technology for administrative and instructional purposes. The new plan called the *"Information Technology Plan for FY95",* continues the same process but is a starting point for future plans to address all activities that relate to the use of information technology on campus.

Information technology consists of activities on campus which uses technology in the distribution of information. The traditional activities include academic computing, administrative computing, and telecommunications. Academic computing is the use of computing technology for instruction by the students and faculty. Administrative computing is the use of computing technology to support the daily activities of the colleges operational processes. Telecommunications is the electronic delivery method used for voice, video, and data services across the institution. It is the infrastructure for communications using a telephone, a personal computer on a network, and the delivery of instruction through TV in the community college district.

The *Information Technology Plan* is divided into six sections: *The Planning Process, Academic Computing, Administrative Computing, Central Computing, Telecommunications and the Financial Considerations.* Each section provides an overview, definition, major issues, goals and a list of recommendations. Under the Telecommunications section there are no specific recommendations only an overview of the current project. Since a separate Telecommunications Plan/RFP addresses the telecommunications needs of the institution, we only included summary information on the status of the project in this section.

The recommendations will address most of the major student, faculty and staff issues identified from surveys. The recommendations provide the strategic direction necessary to keep the college in step with technology to take advantage of future advancements. This will allow us to be more efficient and effective with the current resources, while satisfying the future goals of the institution as defined by the vision statement and the college five year goals. The Financial Considerations provides a summarization of each area by item of the recommendations that have financial implications. Also included is a financial summary showing the estimated revenues and expenditures for fiscal year 1994-95.

Demographics

The College of DuPage is a community college located 25 miles west of Chicago, Illinois in Glen Ellyn. The campus consists of seven buildings on a 265 acre site and three regional centers within 10 miles of the main campus. In addition to a central campus and three in-district regional centers, the college has more than 80 different satellite centers. These range from libraries, elementary and high school classrooms, community houses and churches to municipal buildings and industrial sites.

The college serves District 502 with a population of 900,000 people. In 1992-93 the college served 70,000 different students and the enrollment for fall quarter of 1993 was over 36,116 students. Governed by a seven-member board elected from the district and one non-voting student trustee, the college has 330 full-time faculty, 1,600 part-time faculty, 730 staff, and 48 administrators. College of DuPage is divided into Central Campus and Open Campus, both administered by one central administration.

The Central Campus in Glen Ellyn offers both credit and non-credit programs. Open Campus is responsible for delivering education to off-campus programs, learning labs, skill's center, testing, and independent study courses. The central administration provides support services for students and faculty, including planning, computing, admissions, registration and records, research, finance and business services, public relations, grants, foundation, and physical support services.

The college has over 1600 personal computers, 200 terminals and 44 networks that are used by faculty, staff and students. There are over 900 PCs available for student use in 26 labs on central campus and 12 labs in open campus. There are 100 workstations available for faculty use and the remaining workstations are used for administrative purposes. We are connected to Internet and Bitnet, two national networks, that provide world-wide access to information data bases and electronic mail with colleagues at other colleges and universities.

College Mission

Provide educational opportunities of the highest quality for people of any race, creed, gender, or national origin who want to improve their vocational and avocational skills, or enjoy cultural or recreational activities.

Computing & Information Systems Mission

Computing and Information Systems will provide the highest quality computing and data networking services, in the most cost effective manner, to facilitate the management, teaching and learning processes at the College of DuPage.

To accomplish this mission we will:

- Promote and facilitate the effective integration of computing into the basic mission of the College through planning, programming, training, consulting, and other support activities.

- Develop, enhance, and manage the college's computing networks to provide highspeed, transparent, and highly functional connectivity among all computing and information resources.

- Develop and maintain highly effective, reliable, secure, and innovative information systems to support academic, administrative and research functions. Facilitate the collection, storage, and integrity of electronic data while ensuring appropriate access.

- Promote new uses of information technology within the institution through the support for exploratory and innovative applications.

- Participate in the planning, designing, implementation and operation of all shared computing resources, public labs, and faculty work areas.

Vision Statement

We envision a future in which the quality of life is rich, and the sense of community is strong. While reaffirming our pledge to maintain excellence in our primary objective--the education and development of those we serve--we concurrently accept the challenge to seek unexplored paths that may help prepare our community for the challenges of the next century. We dedicate ourselves to educating and empowering more responsible citizens, promoting a better quality of life for residents of our district, and providing leadership in protecting our natural and human resources.

Five Year Goals

The college has developed a set of five years institutional goals for FY94-FY98. Information technology will in some form impact how each goal is accomplished.

- Implement programs, courses, and services that include a broad range of strategies to provide students with the tools for success.

- Improve the quality of processes and services that have an impact on student learning and success.

- Provide opportunities to enable individuals to live and work in a culturally diverse global society.

- Develop and institute a formal, comprehensive plan for assessing student outcomes.

- Develop a shared vision and mutually established priorities.

- Expand the use of current and new technology to improve instruction and support services.
- Plan and manage for the institutional change.

Issues

Over the next decade, the College of DuPage will face many problems and new challenges. There are several internal issues and external trends that will impact the direction of the college. The major internal issues deal with the *management of growth, changing characteristics of our students, allocation of resources, maintenance of technology and communications.* The major external trends are *changing demographics, limited funding, rapid rate of technology change, and increased demands for convenient services.*

Today and in the future computing will have an ever increasing role in dealing with major issues and trends. It is very important for the college to be a leader in information technology by using technology in our own operation, as well as by teaching the use of current technology to our students. Planning for information technology is the key element to understanding the real issues and their impact on the institution.

PLANNING PROCESS

Overview

An integral part of any successful planning process is the contribution of information by all the its constituents, faculty, staff and students. There were four surveys, interviews with each department, and several committees that were involved in the planning process for information technology. The groups collected data, reviewed and summarized the data to generate a comprehensive document that will satisfy many of the major information technology issues. The following section will define in more detail the planning process and the individuals involved.

Planning Methodology

We used a simple approach to determine the planning methodology. There were six basic questions that needed to be answered.

- Where are we?
- Where do we want to go?
- How do we get there?
- When will it be done?
- Who will be responsible?
- How much will it cost?

A project team was setup to provide the majority of the work effort on the plan. The team consisted of the following:

Gary E. Wenger, Executive Director, Computing and Information Systems;
Donna Berliner, Manager, Mainframe Computing;
Ed Leninger, Manager, Distributed Computing;
Sandra Geis, Manager, Communications, Systems & Operations.

The Executive Director served as project leader and coordinator of the planning effort.

Surveys

We used four surveys, the Student Computing Survey, the Faculty Computing Survey, the Administrative Computing Departmental Survey, and the Academic Computing Departmental Survey, as well as individual interviews with each department on campus to report on the academic and administrative computing needs of the institution.

Student Computing Survey

The Student Computing Survey was generated to provide students with a method of contributing to the plan. The survey provided data on the following areas:

- Issues & concerns
- Computing facility use
- Home computer usage
- Types of services
- Computing lab support
- New services

Faculty Computing Survey

The Faculty Computing Survey provided faculty a method of providing individual input into the use of technology on campus. The survey provided the following information:

- Issues & concerns
- Usage of computing labs on campus
- Types of classroom management software
- Service quality evaluation
- Types of new services
- Home computing usage

Administrative Computing Departmental Survey

The Administrative Computing Departmental Survey generated responses from each dean/director regarding their departmental administrative computing needs. The Executive Director of Computing and Information Systems and/or the Manager of Distributed Computing, Manager of Mainframe Computing, and support staff from Computing and Information Systems interviewed each dean/director. The survey provided the following information:

- Issues & concerns
- Evaluation of current level of support
- Current computing environment
- Projected growth of existing administrative applications
- New computing applications and services
- Type of support needed by user departments

Academic Computing Departmental Survey

The Academic Computing Departmental Survey generated feedback from the deans and associate deans of each division. The Executive Director of Computing and Information Systems and/or the Manager of Distributed Computing interviewed each dean, associate and/or assistant dean. The survey provided the following information:

- Current and projected student use of computers.
- Faculty use of computers
- Current and future software needs
- Plans for expansion
- Service quality evaluation
- New academic computing applications

The surveys provided precise and accurate information about the current computing on campus, and the future needs for both instructional and administrative areas of the college.

Committees

There were five committees that provided input and reviewed the recommendations provided in each of their individual areas.

- Academic Divisional Computer Committee - ADCC
- Academic Computing Planning and Advisory Committee - ACPAC
- Administrative Systems Users Advisory Committee - ASUAC
- Telecommunications Advisory Committee - TAC
- Computing and Information Systems Management Committee - CIMC

Academic Divisional Computer Committee - ADCC

Each academic division identified three to five faculty members involved in computing. These members served on the Academic Divisional Computer Committee to address computing needs. The charge of the committee follows:

- Define divisional computing goals and objectives
- Serve as a nucleus of informed faculty to communicate with other faculty about computing
- Collect information from the division and incorporate the information into a computing plan for the division
- Review and prioritize faculty grant proposals relating to computing

Academic Computing Planning and Advisory Committee - ACPAC

The Academic Computing Planning and Advisory Committee consisted of faculty representatives of each academic division, one academic dean, Dean, Learning Resource Center, the Executive Director Computing and Information Systems, and the Manager of Distributed Computing. An academic dean serves as chairperson on a rotating basis. The charge of the committee follows:

- Define academic computing goals and objectives for the college
- Develop policies and procedures
- Review academic computing standards
- Define the current computing environment
- Evaluate computer resources and support
- Provide feedback to the divisional computer committee and other faculty members
- Review and prioritize academic computing project requests
- Review ongoing divisional computing needs
- Evaluate and award computing grants proposals
- Review the Academic Computing Plan

Administrative Systems Users Advisory Committee - ASUAC

The Administrative Systems Users Advisory Committee consists of the major computing users and director/dean level representatives from the five administrative units (Central Campus, Open Campus, Administrative Affairs, External Affairs, and Planning and Information) as well as the Executive Director, Manager Mainframe Computing, and Manager Distributed Computing from Computing and Information Systems. The charge of the committee was to:

- Develop policies and procedures related to Administrative Computing.
- Review and prioritize all administrative programming requests
- Provide input from their units on computing needs for hardware, software, and support
- Provide feedback to the administrative units represented
- Provide input on future computing needs
- Evaluate the Administrative Computing Plan
- Monitor the software and support needs

Telecommunications Advisory Committee-TAC

The Telecommunications Advisory Committee consists of Vice-President Planning & Information, chairperson, Executive Director Computing & Information Systems, Director Instructional Design, and Director Auxiliary Services. The committee was formed in 1993 to address the voice, video, and data communications needs of the institution. The charge of the committee was to:

- Review voice, video, data communications needs
- Provide input on the future telecommunication needs
- Work with a consultant to develop a telecommunications RFP
- Provide telecommunications recommendations

Computing and Information Systems Management Committee-CIMC

The Computing and Information Systems Management Committee consists of the President, Vice President Planning and Information, Vice President Administrative Affairs, Vice President External Affairs, Provost Central Campus, Provost Open Campus, and the Executive Director Computing and Information Systems. The committee was responsible for:

- Reviewing institutional policies and procedures
- Reviewing campus wide standards
- Reviewing the academic planning recommendations
- Reviewing the administrative planning recommendations
- Reviewing the future direction recommendations
- Recommending priorities
- Recommending funding levels to the Board of Trustees

Final funding decisions for the Information Technology Plan are made by the Board of Trustees during its review. Appendix A shows the organization of

the planning committees for both the administrative and academic computing planning processes. Appendix B shows the current governance structure for information technology and Appendix C shows a diagram of the planning process.

ACADEMIC COMPUTING

Overview

This section provides information dealing with academic computing. Provided is a definition of academic computing, what are the critical issues that are related to academic computing from a student and faculty perspective, and what are the major goals of academic computing for FY95. Also included is the current academic computer usage, projected usage and the proposed recommendations and financial costs for FY95.

Definition

Academic Computing includes all of those activities which are integral to or related to student instruction in computer-related disciplines, or other instruction which relies on computers. This includes all computing functions which either assist instructors in the development or maintenance of course materials or facilitate students in the learning process, support of student labs, and training of faculty in the use of computers.

Issues

There are a number of specific issues which must be addressed in order to ensure the integration of computers into the curriculum, that we are teaching the right programs to the students and that we have a positive impact on students at the college. The information was collected as part of the student and faculty surveys. The issues are divided into student issues and faculty issues. The following is a summary with a grouping by order of importance.

Student Issues

- Tutoring
- Update lab software
- Additional open lab availability
- New technology in the labs

Faculty Issues

- Training
- Update of the hardware and software
- Networking and Communications
- Access to computers in offices

Tutoring is a major issue for students. Students need additional help with computer related problems when in the computer labs. This year we are installing tutoring workstations in the Seaton Computing Center to provide students additional professional assistance by faculty in the lab. The tutoring workstations should be available by spring quarter.

A major issue for both faculty and students is the upgrading of the technology in the labs and in the faculty offices. Currently over 40% of the computer labs are using technology that can not use many of the newest software packages used by industry. It is very important for use to upgrade the older equipment to utilize the new software available.

In addition access is very important for both faculty and students. Students need additional lab time at the regional centers and on central campus to work on their projects. Faculty need additional access to workstations in their offices to prepare course material and provide classroom management functions. Currently the faculty workstation ratio is 4 to 1.

The last major item deals with networking and communications. The faculty need access to the computer resources on and off campus. The new telecommunications system will solve this issue.

Goals

The goals of Academic Computing for FY95 are:

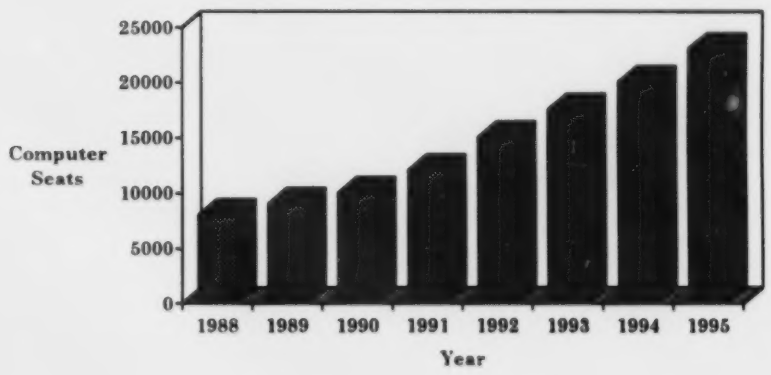
- Increase student and faculty access to computing technology.
- Support the continued exploration of computing technology.
- Providing access to current computing technology.
- Support efforts to provide computer training for faculty.

Student Computing

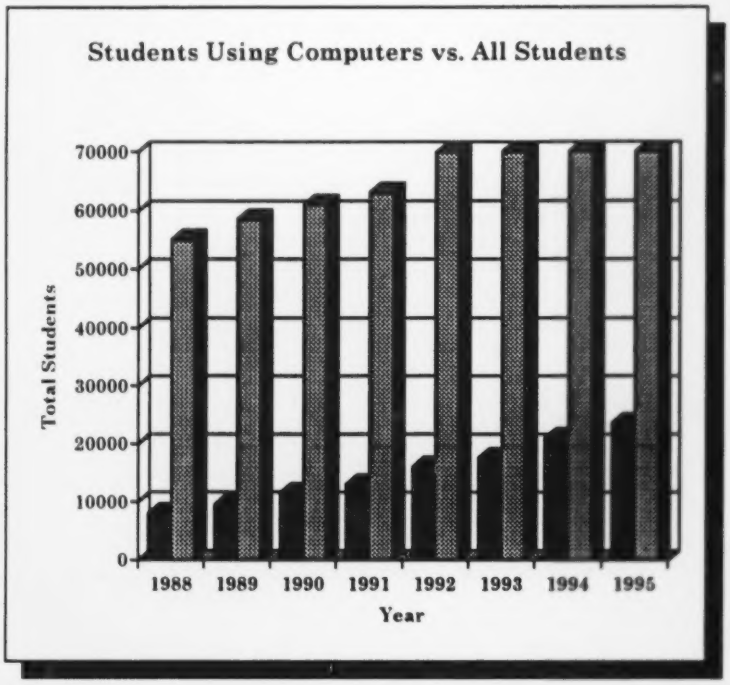
Summary of Student Usage

This section summarizes the level of computer usage as identified from the survey. The following graph provides a history and projections of the growth of student computer usage from 1988 through 1995 for the college as a whole. The numbers are reported on student seat count. A student seat is one student using a computer in one class.

Student Computer Seats



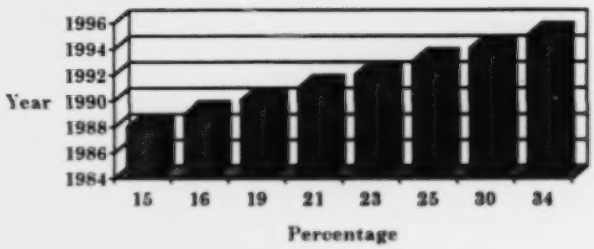
The following graph shows the growth of computing compared to the total student seats for each academic year at the college.



The graph shows a history of computer usage from FYI to projected usage to FY95. In FYI one in every eight students were using computers. For fall FY92 one in every five students on an average were using computers in the classroom. By FY95 one in every three students on an average will be using a computer in a class. From FY88 to FY93 the number of students using a computer increased an average of 25% per year. From FY94-FY95 it is projected to grow at 20% per year.

The following graph shows the percentage of students using computers in courses to all students from 1988 to 1995.

Percentage of Students Using Computers



Summary of Student Labs

Through the survey and review process of each student lab we collected details of each lab including a description of each lab, the type of hardware and software, the hours of operation and management, location on campus, planned enhancements and the recommendation for FY95. Appendix D provides the detail information on each lab for the college.

The following table is a summary of all the labs. The table provides the area, lab name, location on campus, the type of equipment, the current number of workstations, the new proposed/recommended expansion for FY95, whether the lab is networked, and the item reference no. of the recommendation.

CURRENT & NEW STUDENT COMPUTER LAB SUMMARY

Area/Lab Name	Loc	Type	No.	New	Network	Item
CENTRAL CAMPUS						
Business and Services						
Travel and Tourism	IC2003	IBM	20	16	No	1.00
IC Classroom Lab	IC1108	IBM	26	10	No	2.00
Computer Graphics/Fashion Lab	IC1033	IBM	19		No	
Office Careers Labs	IC3Q	IBM	26		Yes	3.00
	IC3R	IBM	26		No	
	IC3S	IBM	26		No	
Communications Division						
Communications Classroom Lab						
	IC2103	IBM	24		Yes	
	IC2105	IBM	24		Yes	4.00
Humanities Division						
Computer Art Lab	AC160	IBM	9		No	
Technomusicology Lab	AC219	MAC	1		No	
Natural Sciences Division						
Natural Science Division Lab	ICTBD	IBM		18	Yes	6.00
Occupational & Vocational						
Architecture Lab	IC1L	IBM	6		No	
Electro-Mechanical/Manufacturing Lab	IC0032	IBM	35		No	
Manufacturing Lab	IC0023	IBM	10		Yes	
Graphics Arts Labs	M106	MAC	21		No	
	M150	MAC	12		No	
	M164	MAC	6		No	
Medical Records Technology	IC1037	IBM	17		Yes	
Nursing Lab	IC2G	IBM	11		No	

Area/Lab Name	Loc	Type	No.	New	Network	Item
Social and Behavioral Sciences						
Social and Behavioral Lab	IC115	MAC	8		Yes	
Learning Resource Center						
CD-ROM	LRC	IBM	10	8	Yes	13.00
LRC Microcomputer Workroom	SRC 3021	IBM	26		Yes	12.00
		MAC	7	4	Yes	12.00
Shared Institutional Labs						
K-Building Complex	K123	IBM	12		Yes	
	MAC			4		14.00
	K125	IBM	37		Yes	14.00
	K127	IBM	26	10	Yes	5.00
	KTBD	IBM		36	Yes	7.00
Seaton Computing Center	SCC121	IBM	37		Yes	14.00
	SCC119	IBM	24	6	Yes	14.00
	SCC125	IBM	37		Yes	14.00
	SCC Open	IBM	107		Yes	14.00
	SCC Open	MAC	18		Yes	14.00
	SCC105A	MAC	25		Yes	14.00
	SCC105B	MAC	25		Yes	
OPEN CAMPUS						
Academic Alternatives						
Glendale Heights Learning Center	Glendale	Mixed	6		No	20.00
Lombard Learning Center	Lombard	Mixed	2		No	21.00
Naperville Learning Center	Naperville	Mixed	5		No	22.00
Westmont Learning Center	Westmont	Mixed	6		No	23.00
Skills Center/Learning Lab	IC3M	Mixed	11		No	24.00
Business & Professional Institute						
Business & Professional Labs	K104A	IBM	10		Yes	
	K106	IBM	13		Yes	
Instructional Affairs and Community Education						
Open Campus Apple Lab	K137	MAC	20		No	
Open Campus Micro Lab	OCC125	IBM	24		Yes	
Addison Regional Center	DAVEA	IBM	49		Yes	17.00
Naperville Regional Center	Naperville	IBM	31	10	Yes	16.00
		MAC		16	Yes	16.00
Westmont Regional Center	Westmont	IBM	31	10	Yes	18.00
		MAC		16	Yes	18.00
Total Workstations			**926**	**164**		

There are 40 student labs with 926 workstations. With the proposed recommendations we would be upgrading 235 workstations, replacing 171 workstations, and expanding the number of workstations by 164 for a total of 1090 student workstations on campus. This would add six new computer labs in FY95.

Student Recommendations

The following section provides a summary of the student recommendations for Academic Computing. The recommendations provide the necessary hardware and software to solve many of the student issues from the survey while meeting the projected growth requirements of student computing on campus.

The largest issue for faculty and students is the upgrading of the technology in the student labs. There are 447 workstations that need to be upgraded or

replaced in order to use the newer technology software. Most of the new applications are moving toward a windows based solution. Students need to be trained using the newer software since this is what is used in the marketplace. In addition most of the new courseware faculty will use for instructional delivery is windows based. Therefore faculty workstations and student labs need to be upgraded or replaced to support the newer applications.

1.00 Replace and expand Travel Tourism Lab

The Travel Tourism Lab has 20 PC's that are not capable of using window based applications. We are recommending the replacement with newer technology at a cost of $48,000.

In addition, the lab contains only 20 PCs. Inorder to use the lab for other Business & Services courses and utilize the lab during non-use, we are recommending the lab be expanded by 16 workstations at a cost of $38,400. We also recommend new lab furniture at a cost of $36,000.

2.00 Replace and expand CIS 1108 Lab with standard workstations

The current CIS 1108 lab contains a mix of different types of workstations. Inorder to provide consistency of workstations to students we are recommending replacing the 26 workstations with newer technology at a cost of $62,400. The existing 26 workstations can be reused in Office Careers and Communications labs.

We are recommending expanding the CIS lab to allow classes to expand from 24 to 36 students. This will cost about $24,000.

3.00 Upgrade PS/2 workstations in Office Careers IC3R

We are recommending upgrading the current PS/2 Model 50Z workstations with internal boards that will provide expanded power to use the newer technology of windows applications. This upgrade will cost $1000 per workstation for a total of $11,000 for the lab.

4.00 Replace Communications Lab in IC2105

The current IC2105 lab contains 24 PCs that are not capable of using window based applications. We are recommending the replacement of the 24 workstations and provide new network cards at a cost of $60,000.

5.00 Expand Communications Lab in K127

K127 lab contains 26 PS/2 Model 56 workstations. We are recommending expanding the lab to 36 to allow additional students in the classes. We are reusing the 10 PS/2 Model 56 from the CIS 1108 lab. Additional networks cards will be needed to network the workstations in the lab. The estimated cost is $2,200.

6.00 Provide Natural Sciences a lab in the IC Bldg.

We are recommending a special purpose lab of 18 workstations for the Natural Sciences division. Currently there are no classroom labs available for natural science courses. The estimated cost of the lab is $61,200 including furniture.

7.00 Provide Natural Sciences a classroom lab on the west campus

The Natural Science division needs a classroom lab on the west campus for faculty to use for instruction. Currently no space is available. We are recommending a lab of 36 workstations, furniture, and networking to the current K bldg. complex. The estimated cost is $149,600. Of this amount $100,000 is from the Advanced Technology Grant.

12.00 Replace, upgrade and expand the LRC Lab

Currently the LRC has 18 PC's that need to be replaced in order to use window based applications. In addition 8-PS/2 Model 55 workstations can be upgraded to provide windows capabilities. We are recommending that all 26 workstations be changed at a cost of $51,200. We are also recommending four additional MAC's be purchased to provide more access at a cost of $12,400.

13.00 Replace and expand the LRC CD-ROM Lab

With the move to the SRC+ and the growing use of CD-ROM technology, we are recommending the current lab be expanded by 10 additional workstations to provide students more access to data bases. The workstations and networking will cost $36,500. In addition we are recommending the current CD-ROM server and network servers be replaced at a cost of $20,000.

14.00 Upgrade IBM PS/2's in the Seaton Computing Center

Currently there are 200 IBM PS/2' Model 55's in the Seaton Computing Center classroom and open labs. The units need to be upgraded to use the newer window based applications. We are recommending 100 of the units be upgraded in FY95 at a cost of $100,000.

14.20 Replace MAC lab in Seaton Computing Center

Currently we have 35 MAC SE workstations that need to be replaced inorder to use the newer technology software for instruction. The estimated cost is $115,600 including networking.

14.30 Replace and expand the CADD workstations in the SCC

The SCC contains 31 CADD workstations for open lab and classroom lab use. The workstations need to be replaced to use the newer technology CADD software. The estimated cost is $93,000. In addition we will need to replace the networking components for a cost of $7,900.

The growth of CADD usage has expanded beyond the resources available. We currently have 24 workstations in the CADD classroom. We are recommending the lab be expanded by 6 six workstations to allow for increased class size. The estimated cost is $41,300 including networking. The total cost of the CADD lab upgrade is $142,200

15.00 Expand K123 open lab

Currently we have no MAC workstations available for student use in the K bldg. open lab. We are recommending four new MAC workstations, networking and furniture be added to K123 at a cost of $18,000.

16.00 Upgrade and expand the Naperville Center lab

Currently there are 31 IBM PS/2 55 workstations in a classroom lab. The workstations need to be upgraded to provide windows capabilities. The estimated cost to upgrade is $31,000. The Naperville Center is remodeling the basement to provide addition lab space. We are recommending adding 10 IBM and 16 MAC workstation. The IBM workstations will provide students with open lab access. The MAC workstations will allow instruction using the MAC platform. The additional workstations will need to be networked to the current lab. The estimated cost of the workstations, and network components is $105,300.

17.00 Upgrade Addison Center lab

We are recommending the upgrading of the 49 IBM PS/2 Model 50 workstations to windows capable. The estimated cost of the upgrade is $49,000.

18.00 Upgrade and expand the Westmont Center lab

Currently there are 31 IBM PS/2 55 workstations in a classroom lab. The workstations need to be upgraded to provide windows capabilities. The estimated cost to upgrade is $31,000. The Naperville Center is remodeling the basement to provide addition lab space. We are recommending adding 10 IBM and 16 MAC workstation. The IBM workstations will provide students with open lab access. The MAC workstations will allow instruction using the MAC platform. The additional workstations will need to be networked to the current lab. The estimated cost of the workstations, and network components is $105,300.

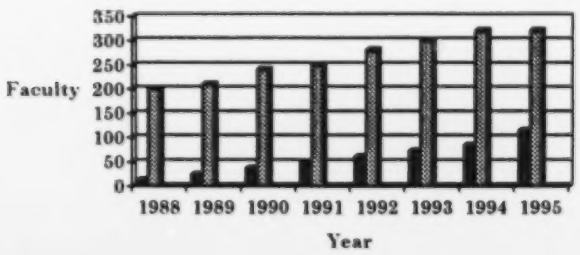
19.00 Replace and Upgrade Learning Lab workstations

There are 15 workstations in five learning centers and two workstations in the ESL center that need to be replaced with windows capable workstations. In addition there are five workstations that need to be upgraded to windows capable. We are recommending all the workstations be changed accordingly at a cost of $45,800.

Faculty Computing

Faculty access to computer resources has also been reviewed through the surveys and interviews. A major issue with faculty is access to the appropriate technology. The faculty wanted the students labs upgraded for teaching purposes and they need the same for class management and instructional preparation and investigation. Over the past six years faculty access has increased. The following graph shows total number of faculty and numbers of faculty workstations available for faculty use. The first bar denotes number of faculty workstations and the second bar denotes the number of full time faculty

Faculty Access to Computers



Since 1988 faculty use of computers has increased dramatically. By December 1993 there were 84 faculty computers being used in faculty office areas supporting over 300 full-time faculty. The problem arises when up to six faculty share the same computer system. The current faculty to workstation ratio is four to one. This does not provide adequate access for all faculty areas. Our goal would be to provide a workstation in every full-time faculty office.

Faculty Recommendations

The following section provides a summary of the recommendations for Faculty Computing. The recommendations provide the necessary hardware and software to solve most of the faculty issues from the survey by increasing faculty access to computers and providing access to the newer technologies of computer use for instruction.

30.00 Provide faculty offices with microcomputers

Provide faculty offices with additional microcomputers to be used in support of these instructional activities:

- Preparation of course materials, management of instruction
- Instructor-student consultation concerning computer-related assignments
- Exploration of new applications, development of instructional software
- Networked access to lab software
- Networked communications with other faculty or support staff and students.

Specific recommendations include the purchase of 30 additional microcomputers in FY95. The estimated budget is $79,000. In addition there will be approximately 29 MAC SEs, 5-PS/2 56, 7-CADD/386 PCs, 14-PS/2 30 workstations that were used in student lab that may be reused in faculty offices depending on the level of need by certain faculty.

31.00 Provide new workstations for checkout.

Currently we have a few laptop computers in divisional offices for faculty checkout. The demand from faculty is increasing to work on projects at home and on weekends. The use of laptops would greatly increase productivity and access to the technology. We are recommending purchasing five additional units for faculty checkout. The estimated budget is $12,000

32.00 Provide funding for the purchase/investigation of new computer hardware technologies

A Hardware Grant Program was created in 1988 to assist faculty in the investigation of new technologies. We need continued funding to meet faculty demand for new instructional/informational delivery systems (i.e., ROM Disk, interactive video, graphics). Funding of these projects are granted by a committee after review of the proposal and its impact on the related areas of instruction. A total of $15,000 is recommended for this program

33.00 Expand the faculty teaching center to include multimedia

A faculty teaching center was recently setup in the LRC to provide faculty a place to receive assistance with the use of technology. The center currently has some equipment that was transferred from the faculty work area in the Seaton Computing Center. We are recommending the purchase of two new multimedia workstations for faculty use. The estimated budget is $10,000.

34.00 Provide faculty work areas at the regional centers

Currently there are no workstations available to full time faculty at the regional centers. We are recommending two workstations each at Naperville, Westmont, and Davea. The estimated cost is $14,400.

35.00 Continue to provide funding for the purchase/investigation of new academic software applications

We are recommending continuing the software grant program for another year. The program has been used extensively by a number of faculty. This program is currently provided in Computing and Information Systems operating budget. This will maintain a budget of $35,000 per year. The funds can be used to provide faculty software for the following:

- New instructional/informational delivery systems.
- Software development tools, such as application software, authoring systems and programming languages.
- Specific software programs to be made available to all faculty as an aid to the management of instruction.

Classroom Computing

The classroom setup and method of delivery of instruction using technology is very important to the quality of the presentation and the students ability to interpret the course material. In several classrooms we currently use old projection equipment to provide overhead displays for the students. As technology on the desktop changes so does the display and presentation equipment. When we use technology in the classroom we need to provide quality equipment for the presentations to the students.

Classroom Recommendations

The following recommendations replace some old equipment and also provide new equipment for the classroom.

35.00 Bunkers for Regional Centers and Central Campus

Inorder to use multimedia in the classroom we need the current computer technology available to faculty. We are recommending a classroom bunker at Naperville, Westmont, Addison and two bunkers on Central Campus. A bunker is a portable enclosure containing multimedia computer based equipment that allows the faculty to use different types of media in the classroom for course presentations. The estimated budget for each bunker is $12,000. The Central Campus bunkers are funded through new initiative funds. The total budget is $60,000.

36.00 Upgrade computer projection equipment

We are recommending the replacement of two PC and LCD black and white projection equipment with new workstations and color LCD that can be used with the newer technology applications. In addition we are recommending the replacement of four old LCD in the Seaton Computing Center classrooms with color displays. Also we are requesting one additional computer and display for Natural Science. The estimated budget is $31,700.

ADMINISTRATIVE COMPUTING

Overview

The complexity of the operation of the College of DuPage today requires automation to meet most of the internal and external reporting needs and the day-to-day operational needs. Most applications today are on-line providing users with immediate access to data stored on the computer for query or for reporting. In the Administrative Computing section we provide a definition of what is administrative computing, what are the major issues/concerns, the goals, recommendations for major application systems and any new initiatives and costs for FY95.

Definition

Administrative computing includes all the information processing services which provide the college management and staff the data necessary to make decisions, record data, and carry out the day-to-day operations. The major administrative functions/applications include payroll, personnel, general ledger, accounts payable, accounts receivable, purchasing, student registration and records, financial aid, inventory, word processing, and management information system.

Issues

In the departmental administrative computing surveys, users identified their major issues/concerns. The following are the major issues that need to be addressed in this plan.

- Networking
- Electronic mail
- Technology update
- Hardware/software technology upgrades
- Campus scheduling system
- Reduce duplicate entry of data
- Upload/download data from/to mainframe and PC
- Electronic data interchange (EDI)
- Access to national networks
- Expanded access to CDAS
- Easy sign on access to system
- Imaging technology
- Security
- Expanded hours for help desk

There are many other issues that affect administrative computing on campus. In the following sections we will address the administrative computing requirements of the college. We evaluated the survey data as it relates to each administrative application and made recommendations as appropriate to address user needs.

Goals

The goals of Administrative Computing are:

- Provide quality training to all users, faculty, and staff.
- Provide easy access to information.
- Utilize technology to keep the college in the mainstream.
- Provide adequate resources to support each application.

Administrative Software

From the surveys we collected information about the current major administrative applications and any new applications that may need to be developed. Appendix E provides detail information about each administrative application that currently exists, identifies any concerns/problems, notes any enhancements/replacements necessary, and itemizes any new applications that need to be acquired and/or developed in-house based on the users' needs. The following is a summary of those applications.

Current Administrative Applications

Below is a list of the current major administrative software applications that reside on the mainframe, microcomputers and networks on campus.

- Academic Alternative Administrative Network (ALAN)
- Box Office System (ARTSOFT)
- Campus Scheduling System
- Capital Assets System (CDAS/CA)
- College and University Financial System (CUFS)
- Counseling Scheduling System
- Degree Audit System (CDAS/DE)
- Financial Aid System (CDAS/FA)
- FOCUS Adhoc Reporting System
- Human Resources Management System (HRMS)
- Job Matching System
- Library System
- Mailing List System (CDAS/ML)
- Management Information System (MIS)
- Position Control System (CDAS/PC)
- Scanning System
- Student Billing and Receivables System (CDAS/BR)
- Student Records System (CDAS/SR)
- Voice Response System

Appendix E provides a detailed description of each current application above; identifies the users of the applications, the growth requirements, and the current problems/concerns; and makes general recommendations for each.

New Administrative Applications

There are new application needs by various administrative areas at the college. Through the survey we collected many unique applications for an individual department and many common applications across many departments. Appendix E provides a detail list of requested applications by user area. The list is not exhaustive, but illustrates the magnitude of computer related applications that could be developed or purchased for the mainframe or microcomputers.

After reviewing the application needs of the departments there were several functions that are currently performed manually that could be done using a computer software application that would save time, improve productivity, provide greater coordination, enhance the college's image, and be more cost effective. The following applications/systems should be developed and/or acquired. Only the FY95 projects are included in the recommendations.

- Campus Information System
- Electronic Data Interchange (EDI)
- Electronic Mail System
- Student Tracking System
- USPS Bar-coding
- Voice Response System Applications-FY96
- Electronic Grade Submission in FY96
- Inplant Management Information System for BPI in FY96

Summary Recommendations

The recommendations are based on the current individual system recommendations and any new system initiatives. Refer to Appendix E for additional detail on each application. The following recommendations will support the current administrative software applications and the new applications that are needed for the future.

40.00 Expand the library system.

We are recommending the library system be expanded to provide micros, and additional printers for the expansion to the SRC+. In FY95 we are recommending 16 micros and ports and 10 laser printers. The laser printers would replace 10 old thermal printers now in use. The micros would be used to expand service to the new SRC+. In addition we are recommending an additional table and hand scanner for checkout and inventory control. The estimated budget is $88,207.

41.00 Enhance Degree Audit System

We are recommending the addition of the Transfer Articulation Module to the current Degree Audit System. The Transfer Articulation Module will provide the student record department with on-line student transfer information. The estimated cost is $15,000.

42.00 Provide campus information system.

We are recommending the purchase of a campus information system in FY95 to provide information access to students, faculty and staff. The system will provide generalized access to campus events and activities, phone directory for faculty and staff, employee benefit information, athletic scheduling, course descriptions, and/or other beneficial information. The access devices may be touch screen and/or keyboard entry. Kiosks should be located at various locations on campus. We are recommending $51,040 in FY95 to provide the site license for software and four access devices. In FY96 additional access devices will be recommended based on the success of the units purchased in FY95. Implementation is limited until the campus-wide cabling system is completed.

43.00 Provide LAN-based office system

We recommend the development/acquisition of a standardized office system that can be used campus-wide. The system should provide electronic mail, calendaring, scheduling, bulletin boards, and databases. The estimated budget is $30,000. This project is dependent on a campus-wide cabling system.

44.00 Continue to develop student tracking system in FY95.

We are recommending the internal development of a student tracking system which allows longitudinal data to be collected on students.

45.00 Continue to develop campus scheduling system in FY95.

Continue to develop the campus scheduling system for multi-user access. The system cannot be used campus wide until the telecommunication system in fully implemented.

46.00 Implement Electronic Data Interchange (EDI) for transcript processing in FY95.

We are recommending the implementation of an EDI system to send/receive transcripts to area colleges and high schools. We received a grant from the state of Illinois to participate with the University of Illinois in FY94-95 to develop the EDI capability. Considerable time and money will be saved as a result.

47.00 Purchase Bar-coding Printer Function in FY95.

We are recommending the purchase of the bar-coding printer function for the mainframe laser printer. Additional discounts will be given by the USPS for implementing this function.

48.00 Update existing mainframe applications.

We recommend the following mainframe applications be updated with the most current release; Degree Audit System in FY95, Human Resource System in FY95, and Financial System in FY96.

49.00 Design, develop, and implement electronic grade submission in FY96.

Each year funds are spent on special forms that are distributed to faculty members for final grades. Time is spent in creating, distributing, and collecting of these forms. A more efficient method would be to perform this function electronically. We are recommending that an electronic method of collecting the grades be developed in FY96.

50.00 Provide inplant management information system for Business and Professional Institute in FY96.

We are recommending the internal development of an Inplant Management Information System for Business and Professional Institute that will integrate with the existing student billing and financial systems.

51.00 Provide imaging system in FY96.

We are recommending the purchase of a LAN-based imaging system in FY96. The imaging system will provide an efficient method of storing personnel file information for the Human Resource office. Since imaging is becoming a cost-effective system for document storage and access, the Human Resource office will serve as a pilot project for imaging at the institution. The estimated budget is $90,000. Campus-wide implementation is limited until the campus-wide cabling system is completed.

52.00 Develop new applications for voice response system in FY96.

We are recommending expanding the current 16 line voice response system from 16 to 32 ports. This will provide additional functions for the Library System, Human Resource Office, and Job Matching System. The estimated budget is $30,000.

53.00 Provide self-checkout system on the library system in FY97.

This self-checkout system will allow patrons to check out books on their own. The system cost is unknown at this time.

54.00 Provide access to information for faculty and staff.

Continue to acquire products and services to provide faculty and staff easy access to necessary information to perform their job functions.

This includes access to the databases on the mainframe and local area networks and to allow downloading of information to users' personal computers. This recommendation cannot be completed until the campus-wide cabling system is complete.

55.00 Migration of administrative applications.

We are recommending moving in a direction to migrate certain administrative applications from the mainframe to LAN-based or client/ server systems where appropriate. This approach will allow easier campus-wide access to information while supporting the applications of the future.

CENTRAL COMPUTING

Overview

The Central Computing section provides a definition, defines the critical issues, strategies, goals and provides the recommendations and costs to meet the college requirement for FY95.

The Telecommunications project has implications in the networking and central computing area. The Telecommunications RFP which is currently out for bid will impact the way campus computing is provided to faculty, students and staff. Funding for all networking hardware items is included in the RFP. We have only included items that relate to the mainframe in this document All networking needs are included in the Telecommunications RFP. Depending on the outcome of the bid process will determine what we receive and what will be needed in future plans. Any items that are needed that are not funded as part of the Telecommunications RFP will need to be addressed in the FY96 Information Technology Plan. Refer to the Telecommunications section for further details

Definition

Central Computing consists of all the support and resources for central computing and the networking operation. This includes any centralized support for hardware, software, and staffing in mainframe and/or departmental computing. Also, this includes the support for the campus-wide data networks supporting administrative and academic computing.

Strategies

Over the last several years we have developed a set of strategies that will provide a direction for campus-wide networking and computing that will keep the college in step with technological changes and position the college in the mainstream to effectively utilize advancements in technology in its own operation. The one main theme is to *build open system* components by defining standards in the following areas.

- Database access
- Connectivity
- User access
- Portability
- Management

A *database access standard* provides a common platform to access user data across multiple file format structures. We are defining SQL - structured query language as the database access standard.

A *connectivity standard* provides a common protocol to connect heterogeneous computer systems allowing access to information in multiple environments while allowing access to all resources from a single computer system including IBM, IBM compatibles, and Macintosh's microcomputers.

Our connectivity standard is to use protocol-independent communications and depend primarily on TCP/IP. Novell Netware will provide LAN to LAN communications for similar operating environments.

A *user access standard* provides a common view from the user workstation to the different computer systems. The standard must improve access to user data. The user access standard will include Windows and Presentation Manager.

A *portability standard* will allow new application systems to be moved to other computer platforms. This will allow the college to move any new applications developed under this standard to be moved with little coding changes. We should move in a direction of UNIX, AIX and RISC based technology.

A *management standard* will allow efficient and cost effective management of the network and its resources. All network management monitoring will be SNMP compatible.

Issues

A number of issues relating to Central Computing need to be addressed in order to provide the most cost effective solution to computing. The following issues must be addressed to maintain a posture of quality systems and central support:

- Upgrading of old technology for both hardware and software
- Provide adequate hardware, software, and human resources that will support user applications
- Provide adequate online user response time
- Provide easy access to all systems for students, faculty, and staff
- Increase help desk and training support

Goals

The following are the Central Computing goals:

- Provide a stable on-line computer environment.
- Maintain data integrity of all system and user databases.
- Provide an up-to-date operating system environment.
- Provide an enterprise network connecting all users
- Provide less than one second on-line user response time.

Mainframe Systems

Mainframe computer equipment needs are based on the growth of existing applications and new applications that are to be purchased or developed. This growth results by adding terminals, PCs and printers to the system and expanding capabilities of existing applications and adding new administrative systems. In situations where the growth exceeds the

capacity, the equipment must be expanded. If the equipment cannot perform certain necessary functions, even with upgrading, then the equipment must be replaced. Mainframe computer equipment on the IBM system can be defined by seven major components: *disk capacity, channels, communications, CPU memory, CPU power , tape drives, and printing.*

Networking

Communications and networking provides the highways to connect the user terminals and personal computers to access information from the various administrative systems. Without the connectivity users have no access to information. There are many users, i.e. faculty and staff, that currently do not have access to information systems on campus. The new telecommunications system that is currently out for bid will provide the networking requirements on campus.

Summary Recommendations

The following section provides a summary of the recommendations for Networking and Central Computing. The only items included are for the IBM mainframe inorder to meet the continuing demand for user application growth and on-line response time.

60.00 Replace old technology disk space

Currently we have 12 IBM 3380 disk drives that provide on-line data storage for the mainframe administrative systems. Because of space limitations and capacity needs we are recommending replacing three of the disk drives with newer technology IBM 9345 drives. The estimated budget is $75,000.

61.00 Expand on-line user disk space

After reviewing the growth of the user applications and the need for new applications as defined in the Administrative Computing section we are recommending two additional disk drives. The estimated cost is $50,000.

62.00 Expand tape capacity on IBM 3480 drives

We are recommending expanding the tape drive capacity on the IBM 3480 tape drives to reduce the amount of storage space for the current tape cabinets. The tape compression software recommended will increase the data access speed and will increase the storage capacity on each tape by 50%. The cost of the software is $15,000.

65.00 Upgrade the VM/ESA, VSE/ESA, and MUSIC operating systems.

The operating system environment of VM/ESA, VSE/ESA and MUSIC should be upgraded to meet the future system requirements.

This will require VM/ESA . VSE/ESA and MUSIC systems should be upgraded to the most current versions as they are announced. Each of these upgrades will require additional resources.

TELECOMMUNICATIONS

Overview

The college has been working on a telecommunications plan for several years. Over the last three years we have worked with a consultant to develop a telecommunications plan and a request for proposal that will address current and projected needs for voice, data, and video communications at the college. A request for proposal (RFP) has been distributed to vendors to secure under contract all labor, materials, equipment, and services necessary for the installation and maintenance for a new telecommunications system.

The new telecommunications system will improve voice, video, and data communications on campus. The new system will integrate central and open campuses and the regional centers for a seamless solution. To students, faculty and staff, the proposed system should be easy to use and maintain, while being flexible to provide a clear migration path to future technologies. Viewing the areas of telecommunications not as distinct stand-alone technologies, but rather as individual components of a much larger, functionally integrated system, we intend to buy new equipment and facilities to replace or upgrade the following: campus cabling, voice services, data services, video services, and cable management.

Campus Cabling

The heart of the telecommunications system is a new campus cabling and wiring plant which will serve as the enabler for the functional integration of voice, video, and data communications services. The cabling system consists of both intra-building and inter-building components. The primary feature of the cable and wire system is fiber optic cable to the desktop. Four multi-mode and two single mode fibers will be placed at most outlet jacks. In addition to carrying voice and data signals between the Central and West campus locations, the fiber system will also carry video signals for distance learning, cable television, and future campus security equipment. The flexible modular design of the cabling will allow for expansion to accommodate future buildings and satisfy the college's voice, video, and data requirements well into the next century. The campus cabling system will be technology independent and provide over 2,200 outlets supporting 5,000 devices.

Voice Services

The college is proposing to replace its current voice PBX with a new digital PBX capable of supporting needs for the next decade and beyond. A primary objective of the PBX system is to provide functionally transparent features to all system users whether they are located at the Glen Ellyn campus or one of its five satellite campuses. Other important features include:

- Expanded capacity to provide telephones in other offices and classrooms.
- Simple single button access to do call transfers, conference calling, last number redial, etc.
- Voice mail to allow the calling party to leave a message.
- Direct dial to your office.
- Caller identification to provide display of caller's name on the telephone.
- Call by name allows the caller to dial a person on campus by their last name.
- Transparent services to all users whether on campus or at one of the regional/learning centers.
- Telephone/PC integration for many future applications such as call tracking and message logging.

Data Services

The college is proposing an enterprise network that would provide full connectivity among the varied computing environments, allowing authorized users convenient and rapid access to applications running across a variety of platforms and network topologies. Proposed features include:

- Standard menu system to facilitate user access to common campus-wide applications.
- Capability to connect all PC's to a campus-wide network.
- New applications, such as electronic mail, calendaring, scheduling, etc.
- Connection to current mainframe and LAN-based systems to the network for access by users on the network. This could include the library system, CD-ROM network, Internet, etc.
- Voice processing and voice/data applications.
- Enterprise network management.
- Centralized software distribution to user workstations.
- Centralized fax services.
- Dial-in and dial-out services.

Video Services

An important element of the proposed video communications system is the establishment of voice, video, and data communications links to each of the five satellite campuses. Broadcast quality, full-motion NTSC video will be transported over wide band video links for both distance education instruction and administrative use. In addition, the links will provide circuits for voice and data communications between each satellite campus and the main campus at Glen Ellyn. Proposed features include:

- Support for optional Low Power Television equipment, Instructional Television Fixed Service equipment (ITFS), closed circuit distribution of instructional video (i.e. VCR tape, satellite down link programs, cable TV, etc.), and FM radio.
- Support for interactive distance learning equipment at central campus and each of the regional centers.

Cable Management

To effectively manage the new technologies, the system will include a cable facility management system to manage all adds, moves, and changes to the cabling system and attached devices. Combining an easy to use CAD-based graphics system and integrated data base, the proposed system will also be used to track and report on the inventory of voice, video, and data equipment.

Timetable

Vendor proposals for the RFP are due February, 1994. Installation should begin as early as June or July, with final implementation of all systems by summer 1995.

FINANCIAL CONSIDERATIONS

Overview

The Financial Consideration section provides a summary of the estimated cost of each recommendations from Academic Computing, Administrative Computing, and Networking and Central Computing sections. In addition a financial plan is included showing the revenues available to fund the information technology needs for FY95.

Academic Computing

The following is a financial summary of the student, faculty, and classroom recommendations for Academic Computing.

Student Computing Financial Summary

Item	Description	Budget
1.00	Travel Tourism Lab	$122,400
2.00	CIS 1108 Lab	$86,400
3.00	Office Careers IC3R	$11,000
4.00	Communications Lab IC2105	$60,000
5.00	Communications Lab K127	$ 2,200
6.00	Natural Science Lab IC Bldg.	$61,200
7.00	Natural Science Lab K Bldg.	$149,600
12.00	LRC Lab	$63,600
13.00	LRC CD-ROM Lab	$56,500
14.00	Seaton Center PS/2 Labs	$100,000
14.20	Seaton MAC Lab	$115,600
14.30	Seaton Center CADD	$142,200
15.00	K123 Open Lab	$18,000
16.00	Naperville Center Lab	$136,300
17.00	Addison Center Lab	$49,000
18.00	Westmont Center Lab	$136,300
19.00	Learning Labs	$45,800
	Total Student Computing	**$1,356,100**

The total amount requested for student computing labs is $1,356,100. An additional $54,244 will be needed for operating funds. This is based on 4% of the purchase price. For additional detail refer to the Academic Computing Financial Worksheet in Appendix F.

Faculty and Classroom Computing Financial Summary

Item	Description	Budget
30.00	Faculty Computers	$79,000
31.00	Checkout workstations	$12,000
32.00	Hardware Grant	$15,000
33.00	Faculty Teaching Center	$10,000
34.00	Faculty Work Area Regionals	$14,400
35.00	Bunkers	$60,000
36.00	Projection Equipment	$31,700
	Total Faculty Computing	**$222,100**

The total amount requested for Faculty and Classroom Computing is $222,100. An additional $8,884 will be needed for operating funds. This is based on 4% of the purchase price. For additional detail refer to the Academic Computing Worksheet in Appendix F.

Administrative Computing

This section identifies the estimated budget for each recommendation from Administrative Computing where funds are needed for acquisition and operation. The following table shows each major computing application recommendation for FY95. The tables define the capital cost.

Administrative Computing Financial Summary

Item	Description	Capital
40.00	Library System	$88,207
41.00	Transfer Articulation Module	$15,000
42.00	Campus Information System	$51,040
43.00	Office System	$30,000
	Total Administrative Computing	**$184,247**

The total amount needed for administrative computing is $184,247 of capital funds and an increase of $18,425 in the operating budget. The operating costs are computed at 10% of the purchase price. The operating cost is for the maintenance amount needed to support the hardware/software. Refer to Appendix F for a detail financial worksheet for the individual components and costs and any item deferred to future years.

Central Computing

This section identifies the estimated budget for each recommendations from Central Computing where funds are needed for acquisition and operation. The following table shows each major item for FY95. The table define the capital costs only.

Central Computing Financial Summary

Item	Description	Capital
60.00	Replace disk drives	$75,000
61.00	New Applications-disk drives	$50,000
62.00	Tape Compression	$15,000
	Total Central Computing	**$140,000**

The total amount needed for Central Computing is $140,000 of capital funds and an increase of $14,000 in the operating funds. The operating costs are computed at 10% of the purchase price. The operating budget is the maintenance amount needed to support the mainframe hardware. Refer to Appendix F for a detail financial worksheet for the individual components and costs and any item deferred to future years.

Telecommunications

A separate budget was setup through capital funds to provide funding for the telecommunications system. The budget is not included in the overall information technology request. The estimated budget is $5,204,000.

Staffing Support

In each of the four major areas, academic computing, administrative computing, central computing, and telecommunications requires a significant amount of person support. Particularly, in using technology we find faculty and staff at different levels of experience requiring entry level to expert level support. When new technology is introduced additional support is needed. As we move into a new campus environment all the rules change in the way we access information and the way we do business. As the use of technology increases the level of support must change to maintain the same quality.

All of these reasons point to the need for additional staffing to support the technology infrastructure and the growth in the use of technology by faculty staff and students. This plan provides a 20% growth in student and faculty workstations. Inorder to maintain the same quality of service three additional positions will be needed for student and faculty support and the

maintenance of computing equipment in FY95. This does not include any additional staffing that is needed as part of the new telecommunications system. Any new positions will be requested through the normal staffing request procedures.

Financial Summary

Summary of Revenues & Expenditures

The following table shows a summary of the estimated revenues and expenditures for FY95. The revenues are based on the expected income generated from various sources. The technology fee started in fall quarter of 1993 at $1 per credit quarter hour per student. The fee will be collected each year generating $660,000 in FY94 and $760,000 in FY95. In FY95 80% of the fee will be used for information technology. The remaining 20% will be used for other technology not yet determined.

The current FY94 Computer Plan will carryover about $200,000 from items budgeted but not purchased in FY94. The Financial Plan that was put together through the finance office budgeted $400,000 for FY95. In addition $130,000 have been set aside from the New Initiative fund and Advanced Technology fund. The total estimated revenue is $1,998,000.

Information Technology Plan FY95
Financial Summary

Description	Operating	Capital	Total
Revenues			
FY94 Technology Fee			$660,000
FY95 Technology Fee			$608,000
FY94 Computer Plan Carry			$200,000
FY95 Financial Plan			$400,000
FY95 New Initiatives			$30,000
FY95 Advanced Technology			$100,000
Total Revenues			**$1,998,000**
Expenditures			
Academic Computing	$63,128	$1,578,200	$1,641,328
Administrative Computing	$18,425	$184,247	$202,672
Central Computing	$14,000	$140,000	$154,000
Total Expenditures	**$95,553**	**$1,902,447**	**$1,998,000**
Revenues-Expenditures			**$0**

The expenditures total $1,998,000 for academic, administrative, and central computing. This includes $95,553 for operating costs and $1,902,447 for capital.

APPENDIX A

INFORMATION TECHNOLOGY COMMITTEES

Academic Computer Planning and Advisory Committee - ACPAC

Representative	Title	Department/Discipline	Extension
Business and Services			
Carol Scott	Asst. Professor	Fashion Merchandise & Design	2058
Communications			
Jan Geesaman	Asst. Professor	English	2327
Computing and Information Systems			
**Ed Leninger	Manager	Distributed Computing	2781
**Gary Wenger	Executive Director	Distributed Computing	2470
Humanities			
*Ed Kies	Dean	Humanities	2047
Kenneth Paoli	Asst. Professor	Music	2584
Learning Resource Center			
Nancy Thomas	Asst. Professor	Learning Resource Center	2383
Natural Sciences			
Christine Russell	Asst. Professor	Chemistry	2044
Occupational & Vocation Education			
Tom Robin	Professor	Welding	2030
Open Campus			
Joe Barillari	Director	Instructional Design	2490
Mark Sutherland	Asst. Professor	Earth Science	2505
Social & Behavioral Sciences			
Pat Slocum	Professor	Psychology	3043

*Chairperson
**Ex officio

Administrative Systems Users Advisory Committee - ASUAC

Representative	Title	Division/Area	Extension
Academic Services			
Bob Regner	Director	Student Financial Aid Career Planning & Placement and Judicial Officer	2610
Administrative Affairs			
Tom Ryan	Director	Financial Affairs	2219
Central Campus			
Vince Pelletier	Dean	Business & Services	2592
Computing and Information Systems			
**Donna Berliner	Manager	Mainframe Computing	2475
**Ed Leninger	Manager	Distributed Computing	2781
*Gary Wenger	Executive Director	Comp. & Info. Systems	2470
External Affairs			
Christine Porter	Coordinator	Campus & Community Events	2456
Human Resources			
Howard Owens	Director	Human Resources	2460
Learning Resource Center			
Bob Veihman	Associate Dean	Learning Resource Center	2659
Open Campus			
Joe Barillari	Director	Instructional Design	2490/91
Planning and Information			
Chuck Erickson	Director	Adms. Regis. and Records	2481
Harlan Schweer	Director	Research and Planning	2335

*Chairperson
**Ex officio

Academic Divisional Computing Committees - ADCC

Representative	Title	Department/Discipline	Extension
Business and Service			
Mike Drafke	Assoc. Professor	Business/Marketing/Management	2075
Julia Fitzpatrick-Cooper	Instructor	Ornamental Horticulture	2526
Wanda Grabow	Asst. Professor	Computer Information Systems	3038
Jack Kapoor	Professor	Business/Management/Marketing	2032
Ron Kapper	Professor	Office Careers	2188
Lori Mattas	Instructor	Travel & Tourism	2684
Rukshad Patel	Instructor	Accounting	3037
*Carol Scott-Chair	Coordinator	Fashion Merchandise & Design	2058
Communications			
*Jan Geesaman-Chair	Asst. Professor	English	2327
Sally Hadley	Dean	Communications	2195
Alice Snelgrove	Asst. Professor	English	2749
Dan Thorpe	Asst. Professor	English	2778
Frank Tourangeau	Assoc. Professor	Speech	2054
Humanities			
Nancy Conradt	Asst. Professor	English	2009
*Ed Kies	Dean	Humanities	2047
Ken Paoli-Chair	Asst. Professor	Music	2584
Natural Sciences			
Marty Huske	Professor	Mathematics	2171
Gerald Krusinski-Chair	Professor	Mathematics	2055
Bill Pehrson	Assoc. Professor	Physical Education	2479
*Christine Russell	Assoc. Professor	Chemistry	2044
Herb Schulz	Professor	Physics	2436
Stuart Anderson	Professor	Mathematics	2062
Occupational & Vocational Education			
Barb Hall	Assoc. Professor	Graphic Arts	2117
Glenn Hansen	Asst. Professor	Technology	2495
Beth Marszalek	Instructor	Graphic Arts	2495
Joanne Metler	Asst. Professor	Health & Public Services	3065
Mark Meyer	Professor	Manufacturing Tech.	2038
*Tom Robin-Chair.	Professor	Manufacturing Tech.	2030
Tom Roesing	Assoc. Dean	Occupational & Vocational Education	2495
Branislav Rosul	Asst. Professor	Manufacturing Tech.	3390
Frank Salvatini	Instructor	Health & Public Services	2043
Open Campus			
Joyce Abel	Assoc. Dean	North Regional Center	495-3010
*Joe Barillari-Chair.	Director	Instructional Design	2490
Sue Ebert-Edwards	Program Manager	Business/Technology Center	2180
Peter Klassen	Professor	Interdisciplinary & Sociology	2081
Social & Behavioral Sciences			
Jack Harkins	Professor	Sociology	2022
Alan Lanning	Professor	Psychology	2028
Walter Packard	Dean	Social & Behavioral Sciences	2156
Dean Peterson	Assoc. Professor	Sociology/Religious Studies	3036
Mario Reda	Professor	Sociology	2134
*Pat Slocum-Chair	Asst. Professor	Psychology	3043

*ACPAC Representative

Telecommunications Advisory Committee - TAC

Representative	Title	Department	Extension
Joe Barillari	Director	Instructional Design	2490
Ernie Gibson	Director	Auxiliary Enterprises	2232
Ron Lemme*	Vice President	Planning & Information	2285
Gary E. Wenger	Executive Director	Computing & Information Systems	2470

* Chairperson

Computing and Information Management Committee - CIMC

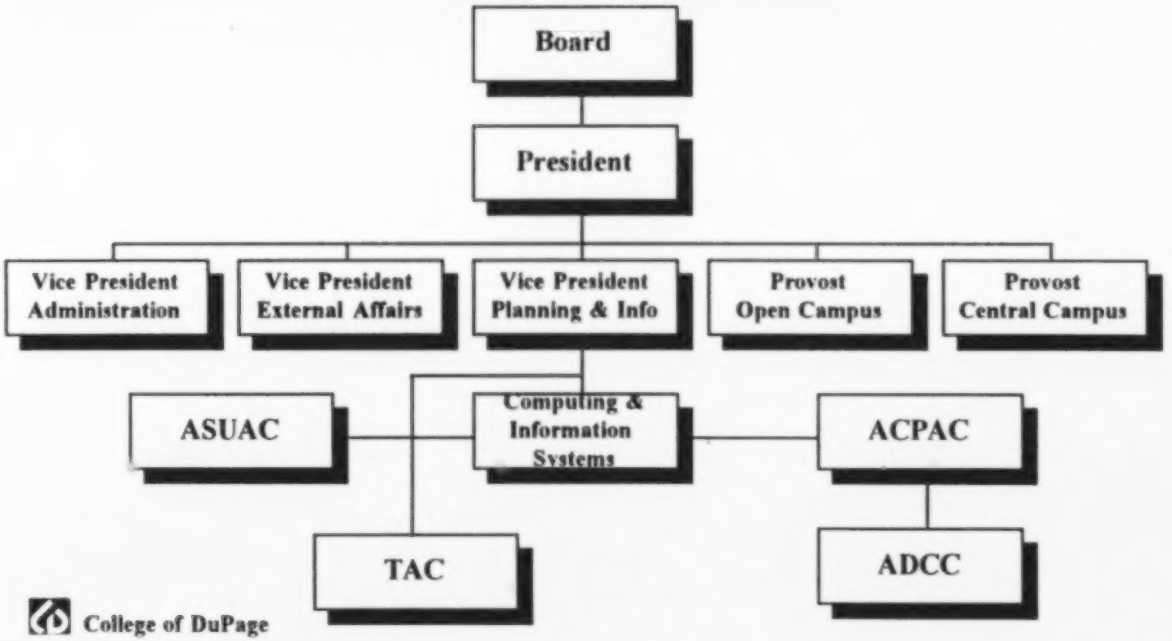
Representative	Title	Department	Extension
Ken Kolbet	Vice President	Administrative Affairs	2218
Ron Lemme	Vice President	Planning and Information	2285
Harold McAninch	President	College of DuPage	2202
Dick Petrizzo	Vice President	External Affairs	2265
Ted Tilton	Provost	Central Campus	2695
Carol Viola	Provost	Open Campus	2577
Gary E. Wenger*	Executive Director	Computing & Information Systems	2470

*-Chairperson

APPENDIX B

GOVERNANCE STRUCTURE

Information Technology Governance Structure

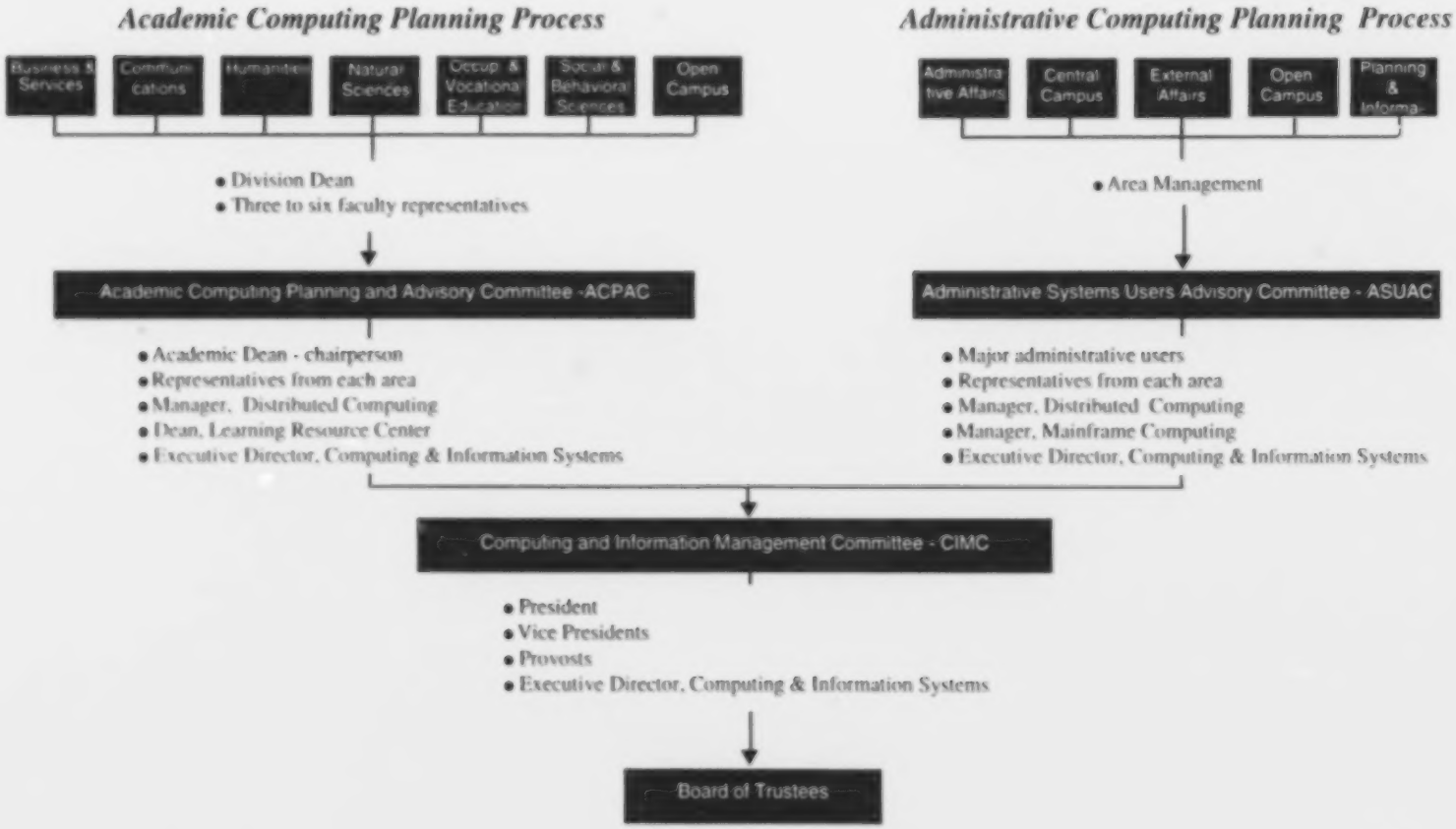


APPENDIX C

PLANNING PROCESS

College of DuPage

INFORMATION TECHNOLOGY PLANNING PROCESS



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APPENDIX D

ACADEMIC COMPUTING LABS

Addison Regional Center Labs

Location

Davea

Type

Classroom/Open Lab

Description

The Addison Regional Center has two classrooms used as both open and classroom labs. These labs supports Computer Information Systems, Office Careers, and Accounting classes offered by Open Campus. Students from Central Campus are also welcome to use the facility. CIS, Accounting, and Office Careers are three of the major types of classes offered at Addison. Both lab classrooms are networked using Novell 3.1 software and Synoptics/Lattisnet equipment.

Management

The Addison Regional Computing Labs are managed by regional office staff. Computing and Information Systems manage the LAN and provide workstation support on an as needed basis.

Operational Hours

Over 60 hours per week

Software

Cortez Peters Typing Programs, DOS 5.02, dBase IV, Gregg Typing Programs, Lotus 1-2-3, Microsoft Works for DOS, Spanish Tutor and WordPerfect as well as various other miscellaneous packages.

Student Hardware

49 - IBM PS/2 50/50Z
15 - ProPrinters
6 - HP Laser Jet 4L

Network Equipment

1 - Everex 386 file server
1 - Synoptics/Ethernet concentrator with Lattisnet NIC's.

Planned Expansion

The Addison regional center will move to a new location in about FY96-97. Current workstation hardware should be upgraded to allow Windows and more memory-intensive applications to run. Lattisnet hardware and server will need to be updated/replaced in near future.

FY95 Recommendation - Item 17

Replace 49 workstation system boards with 486-based processors to provide support for Windows-based instruction. Estimated cost is $49,000.

Architecture Classroom Lab

Type

Classroom/Open Lab

Location

IC1l

Description

Currently the Occupational and Vocational Architecture area has a classroom/lab located in IC1L with six 386-based microcomputers in a standalone mode.

Management

The lab is under instructor supervision with open lab time variable. Computing and Information Systems provides hardware support and technical support on an as needed basis.

Operational Hours

During scheduled classes and variable open lab.

Software

AutoCADD, AutoSketch and Microstation.

Student Hardware

6 - 386-based microcomputers

Planned Expansion

Replace existing 386-based microcomputers with 486-based microcomputers. Connectivity to the CADD lab in the SCC is desirable.

FY95 Recommendation

Replace six existing 386-based microcomputers with six 486/66 MHz microcomputers in FY95. Defer networking and/or connectivity to the SCC pending telecommunications plan implementation.

BPI Microcomputer Labs

Type

Classroom Labs

Description

Three BPI Microcomputer Labs support continuing Education courses offered in the evening and on Saturdays. The labs introductory and advanced courses are offered through Continuing Education.

Management

BPI Microcomputer Labs are managed by the Business and Professional Institute. Each BPI Microcomputer Lab is staffed by one lab aide during class sessions; student use is also supported by their instructor. Computing and Information Systems provides networking support on an as needed basis.

Operational Hours

About 60 hours per week

Software

DOS 5.0, dBase III Plus, dBase IV, Lotus 1-2-3, Excel, PageMaker, Paradox, Quatro Pro, Windows, and WordPerfect as well as various other miscellaneous packages.

Student Hardware

10 IBM PS/2 55SX in Room K104A
13 IBM PS/2 55SX in Room K106B
2 Laser Printers
2 Overhead Systems

Network Equipment

K104A - IBM 8590 server with 400 MB fixed drive
K106B - IBM 8590 server with 400 MB fixed drive
Synoptics/Ethernet 10BaseT networking hardware

Planned Expansion

None identified

FY95 Recommendation

Review lab usage for FY96 expansion

Business & Services (IC1108 Lab)

Type

Classroom Lab

Description

This lab currently is used to teach Business and Services classes including most CIS courses that are microcomputer oriented. Software includes Lotus 1-2-3, DBase IV, Harvard Graphics, and PC DOS 5.0.

Management

IC1108 is managed by Business and Services academic instructors during scheduled classroom time. Computing and Information Systems provides lab aides and hardware maintenance on a scheduled and as needed basis. The lab is currently not networked, but does have one network connection to the SCC.

Operational Hours

Over 60 hours per week. No open lab hours

Software

DOS 6.0, dBase IV, Harvard Graphics and Lotus 1-2-3.

Student Hardware

10 - IBM PS/2 55SX
15 - IBM PS/2 56
1 - IBM PS/2 57 (instructor workstation)
1 - LCD plus overhead

Planned Expansion

Replace existing hardware with higher capacity equipment to provide support for Windows-based instruction and packages requiring more than 4 MB of RAM. Expand number of workstations available for instruction.

FY95 Recommendation

Replace existing equipment with 36 new IBM PS/2 microcomputers for standalone operation.

Communications Division Classroom Labs

Type

Classroom/Open Lab

Description

The Communications division has two classrooms, IC 2103 and 2105 in use as networked computer facilities for instruction. Norton Textra and Daedalus software is currently in use in these classrooms. Open lab time is offered when instructors are present. These rooms are on a shared network with the Office Careers lab and both areas are connected to the Seaton Computing Center.

Management

The classrooms are managed by instructors during classroom time and any scheduled open lab hours. Computing and Information Systems staff provide workstation support and LAN technical support on an as needed basis.

Operational Hours

During scheduled classes both days and evenings with some variable open lab time.

Software

DOS 6.0, Daedalus, Norton Connect and Norton Textra.

Student Hardware

24 - IBM PS/2 Model 56 (IC2103)
1 - HP IIIsi laser printer (IC2103)
24 - IBM PC 5150 (IC2105)
1 - HP IIIsi laser printer (IC2105)

Network Equipment

Synoptics 3000 concentrator with 10BaseT LAN equipment
Everex 386 file server (shared with Office Careers)

Planned Expansion

IBM PC 5150 microcomputers in IC2105 classroom are obsolete. These 24 machines should be replaced with 486-based microcomputers to allow Windows-based and interactive instruction. Existing network cards must be replaced to accommodate newer workstations.

FY95 Recommendation

Replace 24 IBM PC 5150 microcomputers with new 486-based microcomputers. Replace network interface cards for above systems.

Computer Art Lab

Type

Classroom/Open Lab

Description

The Computer Art Lab in AC160 is currently being used by students in the Art Department to perform high-level computer graphics with pressure-sensitive tablets that allow for realistic painting or drawing; animation recorders that support full motion animation and video output to various video devices; and a sophisticated Nikon scanner for slide scanning. The computers are ISA compatibles running state-of-the-art graphics packages for video and photo editing and graphics composition.

Management

The Computer Art Lab is managed by an instructor in the Art Department of Humanities. Computing and Information Systems provide hardware and operational support on an as needed basis.

Operational Hours

40 hours per week.

Software

Adobe Photoshop, Corel Draw, Fractal Design Calligari and Texture City, Aldus PhotoStyler.

Student Hardware

9 - LS 486/DX/2-66 microcomputers
1 - Microtek 600Z color scanner
1 - HP Deskjet 550C color printer
1 - True Vision Vid I/O box
1 - TekTronix Phaser IISDX color printer
1 - Polaroid CI5000 film recorder
2 - Wacom SD-420E 12X12 tablets
1 - DPS Personal animation recorder
1 - Nikon LS-10 CoolScan external slide scanner

Planned Expansion

Department funded additional workstations may be added. There are no immediate plans to network this lab.

FY95 Recommendation

No Information Technology Plan funded enhancements are planned for FY95.

Computer Graphics/Fashion Design Lab

Type

Classroom/Open Lab

Description

The Computer Graphics Lab is currently being used by students in computer graphics, advertising design, illustrations and fashion design. The computers are specially configured IBM, IBM-compatible, and Compaq microcomputers running Lumena, Adobe Illustrator, and 3D Studio graphics software which allow the students to manipulate video images. The Fashion Design software (PDS) is used for training students in state-of-the-art pattern design, textile design, garment design and fashion illustration.

Management

The Computer Graphics Lab is managed by the Commercial Art area. Support is provided to students by their instructors.

Operational Hours

About 50 hours per week

Software

Adobe Illustrator, DOS 6.0, Lumena, the Pattern Design System, QuarkXPress and Windows.

Student Hardware

6 - IBM PS/2 80
8 - IBM AT Compatibles
4 - Compaq 386
1 - Macintosh Quadra 950
1 - Matrix Film Recorder
1 - Color Printer
1 - Plotter
1 - Digitizer

Planned Expansion

Update workstations and printers in upcoming fiscal years. Review options concerning networking lab.

FY95 Recommendation

No institutional computing plan hardware expansion.

Electro-Mechanical/Manufacturing Technology Lab

Type

Classroom/Open Lab

Description:

The Electro-Mechanical Lab is used by faculty and students both the classroom and open lab environment. These computers/programmable controllers use various manufacturer's software programs to provide the "hands-on" learning situations in the robotics, process control,

instrumentation, mechanical maintenance, and programmable controller courses.

Management

The Electro-Mechanical Technology Lab is managed by the Technology area. Support is provided to students by their instructor.

Operational Hours

Over 75 hours per week

Student Hardware

11 - PCs shared with Manufacturing Technology
4 - Allen-Bradley PLC-2
6 - Mitsubishi PLCs
4 - Square D PLCs
4 - General Electric Fanuc PLCs
4 - Allen Bradley SLC-150's
1 - Toshiba PLC
1 - Gould-Modicon PLC
1 - Smart Screen process simulator/emulator

Planned Expansion

Replacement workstations are needed in the numerical control area. Existing 386-based machines should be upgraded/replaced.

FY95 Recommendation

Replace 10 386-based manufacturing technology workstations with 486-based standalone units. This lab is currently not networked and should remain standalone pending campus-wide networking.

Glendale Heights Learning Center Lab

Type

Classroom/Open Lab

Description

The Glendale Heights Learning Center Lab is used by Glendale Heights Learning Center for their Older Adult Institute Program, non-credit classes, and credit courses.

Management

The Open Campus Micro Lab is managed by the Open Campus. Support is provided to students by their instructor. Hardware and software support is provided by Computing and Information Systems on as needed basis.

Student Hardware

1 - Apple IIe
3 - HP microcomputers
2 - IBM PS/2

Operational Hours

Variable

Planned Expansion

Replace existing HP and Apple student microcomputers with new IBM equipment. Student workstations are not currently networked and should be reviewed for future connectivity in relation to the telecommunications plan.

FY95 Recommendation

Provide four new IBM PS/2 microcomputers to replace existing three HP and one Apple microcomputers.

Graphics Arts Lab

Type

Classroom/Open Lab

Description

The Occupational and Vocational division currently has a graphics arts lab in M106 used by student enrolled in Graphics Arts classes including Graphics Arts 182, 183, 186, and 280. These students use a variety of desktop publishing and graphics packages.

Management

The lab is under instructor supervision with open lab time variable. Computing and Information Systems provides hardware support and technical support on an as needed basis.

Operational Hours

During scheduled classes and variable open lab.

Software

System 7.1, Adobe Illustrator, Adobe Photoshop, Aldus Freehand, Aldus PageMaker, Aldus SuperPaint and QuarkXPress, as well as various other miscellaneous packages.

Student Hardware

21 - Macintosh microcomputers (M106)
12 - Macintosh microcomputers (M150)
6 - Macintosh microcomputers (M164)

Planned Expansion

Provide newer Macintosh platforms for higher end graphics packages. Lab in M150 will be networked with higher speed Ethertalk cabling in Spring 1994. Hardware purchased in Winter 1994.

FY95 Recommendation

Purchase 16 Macintosh Quadra microcomputers and furniture. Defer complete networking of this facility pending telecommunications plan implementation.

K Building Complex - Open Campus

Type

Classroom/Open Lab

Description

The lab is currently located in two contiguous rooms. One is a dedicated open lab and the other is used for either a classroom lab or an open lab when classes are not scheduled. The two areas are divided by the lab aides workroom. There are 36 PC's on the classroom side and 19 PC's on the open lab side. All computers are connected to printers via switch boxes. All the software available on central campus is available in this lab. A projection device is attached to the instructor's workstation in the front of the classroom to allow the instructor to project his monitor display to a projection screen. An additional room (K127) will be available Winter 1994 with an additional 28 networked workstations.

Management

The Microcomputer classroom/lab is managed by the Academic Lab Supervisor in Computing and Information Systems. The K building lab complex is student worker at all times the lab is open. LAN support is provided by Computing and Information Systems staff.

Operational Hours

Over 80 hours per week

Software

DOS 6.0, Daedalus, dBase IV, Harvard Graphics, Lotus 1-2-3, Microsoft Works for DOS, Norton Textra, Peachtree Accounting Software, Turbo Pascal, Visual Basic, and Windows as well as various other miscellaneous packages.

Student Hardware

48 - IBM PS/2 56 (K123/125)
28 - IBM PS/2 57 (K127)
11 - IBM Proprinter/2390

Network Equipment

IBM 9595 file server with 400 MB disk space
Synoptics 3000 concentrator with Ethernet 10BaseT hardware

Planned Expansion

The K127 lab is to be implemented in Winter 1994. An additional room (K129) is to be added. Macintosh equipment is needed in this lab area. Add additional units to K127.

FY95 Recommendation

Purchase 10 Macintosh Quadra microcomputers and network to existing LAN. Add 10 PS/2 56 microcomputers to K127 from Business and Services IC1108 lab. Acquire 10BaseT LAN hardware for above.

Lombard Learning Center Lab

Type

Classroom/Open Lab

Description

The Lombard Learning Center Lab is used to provide academic alternative instruction including the Older Adult Institute Program, non-credit classes, and credit courses.

Management

The Open Campus Micro Lab is managed by the Open Campus. Support is provided to students by their instructor. Hardware and software support is provided by Computing and Information Systems on as needed basis.

Student Hardware

1 - HP microcomputer
1 - Apple II

Operational Hours

Variable

Planned Expansion

Replace existing HP and Apple student microcomputers with new IBM equipment. Student workstations are not currently networked and should be reviewed for future connectivity in relation to the telecommunications plan.

FY95 Recommendation

Provide two new IBM PS/2 microcomputers to replace existing HP and Apple microcomputers.

LRC CD-ROM Network

Type

Open Lab

Description

The CD-ROM network is located in the public access area of the LRC. This network provides access to CD-ROM materials for students, faculty, and LRC patrons. CD-ROM access is provided in a networked environment containing 10 IBM PS/2 microcomputers networked to the LRC Microcomputer Workroom Network. A separate file server provides network access and management services.

Management

The LRC CD-ROM Network is supported by Computing and Information Systems.

Operational Hours

During normal LRC work hours.

Software

The following is a list of the CD-ROMs that are available in the LRC: American History, Chicago Tribune, Compact Disclosure, Anthropology), ERIC (Education), Illinois 1990 Census, National Trade Data Bank, Nursing and Allied Health, PsycLit (Psychology), SocioFile (Sociology) and Social Issues Resources.

Hardware

10 - IBM PS/2
5 - CD-ROM players (four CD drives each)
13 - Dot matrix printers

Network Equipment

IBM PS/2 57 server
Ethernet bus communication hardware

Planned Expansion

Add eight additional PS/2 workstations for public access. Add 16 CD-ROM drive capacity. Provide laser printer output. Upgrade/replace server and network communication hardware to 10BaseT configuration.

FY95 Recommendation

Replace existing server with higher capacity 486-based microcomputer. Defer adding new workstations, printers, and CD-ROM capacity until FY96. Defer conversion of Ethernet bus network configuration to 10BaseT pending completion of SRC Plus and the telecommunication plan implementation.

LRC Microcomputer Workroom

Type

Open Lab

Description

The LRC Microcomputer Workroom supports all areas of instruction as a teaching or learning aid. The workstations in this lab are networked for software distribution and printer sharing. This LAN is connected to the SCC network via the CIS network. This lab is also a point of distribution for microcomputers and/or portable projection systems on loan to instructors as well as eight laptops for home use.

Management

The LRC Microcomputer Workroom is managed through the Learning Resource Center. The area is managed by a full-time lab supervisor and assisted by part-time lab aides. Computing and Information Systems provides workstation hardware support and technical LAN support on an as needed basis.

Operational Hours

About 75 hours per week.

Software

Adobe Illustrator, Aldus Freehand, DOS 3.3, dBase IV, Lotus 1-2-3, Microsoft Word, Microsoft Excel, Microsoft Works for DOS, Norton Textra,

PageMaker, System 7.1 and WordPerfect as well as various other miscellaneous packages.

Student Hardware

16 - IBM PS/2 30
8 - IBM PS/2 55SX
2 - IBM PC 5150
1 - Macintosh II
4 - Macintosh IIci
3 - Macintosh SE
1 - Macintosh IIcx
1 - HP LaserJet III
1 - Apple LaserWriter Plus
7 - IBM Proprinter

Network Equipment

Everex 386 file server
Ethernet bus communication hardware

Planned Expansion

Existing IBM microcomputers are obsolete. These workstations should be replaced with Windows-capable equipment. Network hardware is the oldest on campus. The simple Ethernet bus structure should be replaced with a 10BaseT arrangement.

FY95 Recommendation

Replace 16 PS/2 30 microcomputers with IBM 486-based microcomputers. Upgrade eight PS/2 55 microcomputers with eight 486-based system boards. Replace two IBM 5150 PC microcomputers with IBM 486-based PS/2 microcomputers. Replace server and network equipment with 486-based server and Synoptics 10BaseT LAN equipment.

Manufacturing Technology Lab

Type

Open Lab/Classroom

Description

The Manufacturing Technology Lab is a combination computer, lecture, and traditional drafting classroom. A Novell 3.11 local area network was installed in the winter 1994. AutoCadd and Microstation software are used to support Manufacturing 102, 103, 206, 207, and 208 courses.

Management

This lab is managed by Occupational and Vocational division. All PC support is provided through Computing and Information Systems.

Operational Hours

About 60 hours per week.

Software

AutoCadd and Microstation

Student Hardware

4 - LSI 486 DX2/66MHz
6 - LSI 386/33 MHz
1 - HP LaserJet III
2 - HP 7475 Plotters

Network Equipment

IBM 9595 File server
1 Gbyte disk space
16 Mbyte memory
RG33 Thinnet

Planned Expansion

Additional workstations are planned for in future years.

FY95 Recommendation

None at this time.

Naperville Learning Center Lab

Type

Classroom/Open Lab

Description

The Naperville Learning Center Lab is used to provide academic alternative instruction including the Older Adult Institute Program, non-credit classes, and credit courses.

Management

The Open Campus Micro Lab is managed by the Open Campus. Support is provided to students by their instructor. Hardware and software support is provided by Computing and Information Systems on as needed basis.

Student Hardware

1 - IBM PC
1 - Apple II
3 - IBM PS/2 30-286

Operational Hours

Variable

Planned Expansion

Replace existing student microcomputers with new IBM equipment. Student workstations are not currently networked and should be reviewed for future connectivity in relation to the telecommunications plan.

FY95 Recommendation

Provide one new IBM PS/2 microcomputer and three PS/2 system board upgrades to replace existing equipment.

Provide one new IBM PS/2 microcomputer and three PS/2 system board upgrades to replace existing equipment.

Naperville Regional Center Computer Lab

Type

Classroom/Open Lab

Description

The Naperville Regional Center Computer Lab is used both as an open lab and a classroom lab. This lab supports Computer Information Systems classes, Office Careers classes and computer supported instruction in a wide range of disciplines. A projection device is attached to the instructor's workstation in the front of the classroom to allow the instructor to project the monitor display to the projection screen.

Management

The Naperville Regional Center Computer Lab is managed by regional center staff. Support in the use of the lab is provided to students by staff or a student lab aide. Technical network support is provided by Computing and Information Systems on an as needed basis.

Operational Hours

Approximately 80 hours per week

Software

Cortez Peters Typing Programs, DOS 6.0, dBase IV, Gregg Typing Programs, Lotus 1-2-3, Microsoft Works for DOS, Spanish Tutor and WordPerfect as well as various other miscellaneous packages.

Student Hardware

31 - IBM PS/2 Microcomputers
8 - IBM Proprinters

Network Equipment

Everex 386 file server
Synoptics 3000 concentrator and Synoptics/Lattisnet LAN hardware

Planned Expansion

The 31 PS/2 55SX microcomputers should be upgraded to 486-based system boards and fixed disks. Add 16 Macintosh and 15 IBM PS/2 microcomputers for lower level expansion. Replace 386-based server with 486-based server and convert Lattisnet lab hardware to 10BaseT. Upgrade black and white LCD panels by replacing with four color LCD panels.

FY95 Recommendation

Upgrade 31 PS/2 55 microcomputers with 486-based system boards and fixed disks. Add 16 new Macintosh and 15 IBM PS/2 microcomputers for lower level expansion. Replace 386-based server with 486-based server and convert Lattisnet lab hardware to 10BaseT. Defer purchase of an additional 15 new IBM PS/2 microcomputers for lower level lab for FY96.

Natural Science Division Classroom Lab - Proposed

Type

Classroom/Open Lab

Description

The Natural Science Division currently does not have a separate computer classroom lab for instruction. Natural science shares the open scheduling for one SCC classroom. The division plans to add two classroom/labs, one on each side of campus. These labs will be used for advanced science instruction including physical sciences and mathematics. The central campus lab will be located in a site in the IC building. The west side of campus lab will be located in K129 as part of the K building lab complex.

Management

The classrooms will be under instructor supervision during classes. Open lab use has not yet been finalized. Computing and Information Systems staff will provide hardware and technical LAN support on an as needed basis.

Operational Hours

To be determined.

Student Hardware

36 - IBM PS/2 (IC)
36 - IBM PS/2 (K129)
2 - laser printer

Network Equipment

To be determined.

Planned Expansion

The K building lab will be networked to the existing K building LAN complex. Thirty-six workstations will be purchased. Concentrator, server, memory, network adapter cards, and server disk space will be needed. The IC lab will require 36 IBM PS/2 workstations. Networking feasibility has not yet been determined.

FY95 Recommendation

Purchase 36 IBM PS/2 microcomputers for K129 lab. Purchase server, memory, network adapter cards, and server disk space. Defer purchase of workstations for IC lab until FY96.

Office Careers Labs

Type

Classroom/Open Lab

Description

This lab consists of IBM PS/2 microcomputers. The IBM PS/2 microcomputers are used primarily by Office Careers students to complete class assignments for beginning and advanced classes in word processing. However, JTPA students use the equipment for training in word processing

as well. Room IC3Q is currently networked using Novell 3.11 software and Synoptics 10BaseT Ethernet hardware. The remaining rooms, IC3S and IC3R, and currently not networked.

Management

The Office Careers Lab is managed by the Office Careers area with Business and Services. One full-time lab supervisor and several teaching assistants circulate throughout the lab during operating hours to assist students when necessary. A teaching assistant is in the lab at all times. Computing and Information Systems provides LAN and workstation support on an as needed basis.

Operational Hours

Over 80 hours per week

Software

Cortez Peters Typing Programs, DOS 6.0, Gregg Typing Programs, and Wordperfect as well as various other miscellaneous packages.

Student Hardware

26 - IBM PS/2 55SX (3S)
126 - LSI 386 40 (3Q)
4 - IBM PS/2 30 (3R)
11 - IBM PS/2 50Z (3R)
26 - IBM Proprinter II/2390
7 - HP Laser Printer
7 - IBM PS/2 50Z

Network Equipment

Share Everex 386 server with communications lab
Synoptics 2800A concentrators and 10BaseT equipment

Planned Expansion

Network IC3R classrooms to provide shared software access. Upgrade PS/2 30 and 50Z units to be Windows compatible.

FY95 Recommendation

Upgrade 25 PS/2 microcomputers in IC3R with 486-based system boards. Move or install 11 PS/2 55 microcomputers from IC 1108. Defer networking IC 3R until FY96.

Open Campus Macintosh Lab

Type

Classroom Lab

Description

The Open Campus Macintosh Lab is used by Open Campus for non-credit courses offered by Kids on Campus, Older Adult Institute, and Adult Continuing Education. This lab uses Microsoft Word, Excel, PageMaker, and Music composition and simulation software.

Management

The Open Campus Apple Lab is managed by Open Campus. Support in the use of the lab is provided to students by their instructors.

Operational Hours

Over 60 hours per week

Software

Aldus PageMaker, Aldus SuperPaint, HyperCard, Life & Death, Microsoft Excel, Microsoft Word, Microsoft Works, Number Munchers, Number Maze, System 7.1, Work Munchers, Word Maze, Where in the World is Carmen Sandiego, and the Writing Center as well as various other miscellaneous packages.

Student Hardware

20 - Macintosh III
5 - Apple Image Writer Printers
1 - Apple Laser Writer 2G
1 - Canon BJC color printer
1 - LCD panel

Planned Expansion

Lab was converted from Apple LC microcomputers to Macintosh during FY94. Lab is currently standalone, networking feasibility will be considered in the Telecommunications Plan.

FY95 Recommendation

No institutional computing plan funding identified.

Open Campus IBM Lab

Type

Classroom Lab

Description

The Open Campus IBM Lab is used by Open Campus for non-credit courses offered by Adult Continuing education, Kids on Campus and Older Adult Institute.

Management

The Open Campus IBM Lab is managed by Open Campus. Support is provided to students by their instructor. Technical network support is provided by Computing and Information Systems.

Software

DOS 6.0, Mavis Beacon, Animator, Windows 3.1, Microsoft Excel, as well as various other miscellaneous packages.

Student Hardware

24 - IBM PS/2 Model 50/50Z
8 - Proprinters

Network Equipment

Everex 386 Network Server
Ethernet bus network hardware

Planned Expansion

Memory upgrades and installation of fixed drives in FY94 permits Windows based applications. Network is older Ethernet based structure. Conversion to 10BaseT, server upgrade/replacement and workstation system board upgrades should be planned for FY96. Upgrade black and white LCD panel by replacing with four color LCD panel.

FY95 Recommendation

No institutional computing plan funding for FY95 identified.

Seaton Computing Center

Description

The facility provides seven computing labs/classrooms that used by all academic areas of the college. One lab/classroom is dedicated to CADD, Computer Assisted Drafting and Design. Four of the rooms are used primarily as classrooms for instructors who need computers for teaching. The other two rooms are used as open labs for students. When the classrooms are not scheduled for classes and open lab space is needed, the classrooms may be used for open labs for students. Each classroom has 25 to 37 workstations and nine printers.

The CADD lab contains 24 workstations, three of the classrooms have IBM PS/2 55SX's installed, and the fourth has Apple Macintosh SE's. The Macintosh classroom was divided into two classrooms containing 25 workstations each for Winter 1994 use. One open lab contains 60 PS/2 55SX workstations with 12 printers. The other open lab has six CADD workstations, 12 Macintoshes, six Interactive Video Disk workstations, and 34 IBM PS/2 55SX's.

All the workstations are networked with Synoptics/Lattisnet equipment with file servers using Novell 3.11 software. The networks extends to the IBM mainframe, UNIX RS/6000 computer and will eventually connect to the LRC Library System and faculty suites. Electronic mail between faculty and students will be provided. Students will be able to access the library's on-line catalog and the IBM mainframe from any workstation within the facility. A network Management system provides security against illegal access, information about students usage, and central distribution of software to students.

A distribution center is centrally located in the facility. The distribution center provides student consulting support, documentation and high quality laser printouts. Lab aides are on duty during operational hours to distribute the documentation and printouts, assist students with problems, and provide security and management of the facility.

Management

The Seaton Computing Center (SCC) is managed by Computing and Information Systems. The Seaton Computing Center is staffed with part-time lab aides and a lab supervisor.

Operational Hours

84 hours per week.

Software

Adobe Illustrator, Aldus PageMaker, Aldus SuperPaint, Anthropology 3, Animator, Animator Pro, AutoCadd, Cortez Peters Typing Programs, DOS 6.0, dBase IV, Gregg Typing Programs, HyperCard, Lotus 1-2-3, Microsoft Word, Microsoft Works for DOS, Microstation, QuarkXPress, System 7.1, Turbo Basic, Turbo C++, Turbo Pascal and WordPerfect as well as various other miscellaneous packages.

Student Hardware

33 - Macintosh SE
29 - Macintosh Centris 650
30 - CADD Workstations - 386 Based
6 - Interactive Video Disk Workstations
211 - IBM PS/2 55SX

Networking Equipment

1 - IBM PS/2 95 server with 800 MB disk storage
2 - Everex 386 file servers
1 - IBM RS6000
4 - Synoptics 3000 concentrator with Lattisnet LAN equipment

Planned Expansion

IBM equipment in SCC should be upgraded to be Windows compatible. CADD 386 workstations should be upgraded to 486-based microcomputers. Macintosh SE microcomputers should be replaced with newer equipment. Color LCD panels should be provided for classroom use.

FY95 Recommendation

Replace 31 386-based CADD workstations with new 486/66 MHz workstations. Upgrade 140 IBM PS/2 55 microcomputers with 486-based system boards and fixed disks. Replace 35 Macintosh SE microcomputers with new Macintosh Quadra microcomputers. Upgrade black and white LCD panels by replacing with four color LCD panels. Replace Macintosh and CADD Lattisnet network equipment with 10BaseT hardware.

Social and Behavioral Lab

Type

Classroom Lab

Description

The Social and Behavioral Division has installed a Macintosh lab in IC1115 to provide computer-based instruction in Anthropology, Psychology, and other social and behavioral areas. The lab has recently been equipped with AppleTalk connectivity to provide file sharing and printer sharing.

Management

Instructors in the Social and Behavioral division provide lab support during scheduled classes and open lab time. Computing and Information Systems provides hardware and software support on an as needed basis.

Operational Hours

Open during scheduled classes only plus about 10 open lab hours per week.

Software

Anthropology 3. Microsoft Word and System 7.1 as well as various other miscellaneous packages.

Student Hardware

5 - Macintosh IIsi
2 - Macintosh LCIII
1 - Macintosh Centris 650
1 - Apple LaserWriter II
1 - Color scanner

Planned Expansion

Add five additional Macintosh and five IBM workstations in future fiscal years. Network lab with a 10BaseT configuration.

FY95 Recommendation

No institutional computing plan funding for FY95 has been identified.

Travel and Tourism Computer Lab

Type

Classroom Lab

Description

The Travel and Tourism Lab is used by Travel and Tourism faculty and students as a classroom environment. Students in Travel and Tourism use a software program written at the College of DuPage to assist them in learning ticketing, geography, and the Apollo and Sabre Reservation Systems. This lab is currently not networked and is used for classroom instruction only in the Travel and Tourism area.

Management

The Travel and Tourism Computer Lab is managed by the Travel and Tourism area. Support in the use of the lab is provided to students by their instructors.

Operational Hours

Open during scheduled classes only

Software

Apollo, DOS 3.1 and Saber.

Student Hardware

20 - IBM PC 5150

Planned Expansion

This lab has obsolete equipment unusable for other than the existing Travel/Tourism software. This equipment should be replaced and the lab should be networked to allow wider access by Business and Services areas.

FY95 Recommendation

Replace 20 PC 5150 microcomputers with 20 IBM PS/2 microcomputers. Add 16 additional PS/2 microcomputers for a total of 36 workstations. Move lab to IC 1111. Defer networking lab until FY96.

Technomusicology Lab

Type

Open Lab

Description

The Technomusicology Lab located in AC219 provides a hardware platform for students taking technomusicology courses 211, 212, and 213. Technical aspects covered include music sequencing and music notation. In general, this course sequence applies tape recording techniques using digital technology. Students create and edit sound tracks using a variety of specialized software including Finale, Vision, Alchemy, and Galaxy on a Macintosh platform.

Management

The Technomusicology Lab is managed by an instructor in the Music area of the Humanities division. Computing and Information Systems provides hardware and operational support on an as needed basis.

Operational Hours

Approximately 90 hours per week

Software

Finale, Vision, Alchemy, Galaxy, MIDI OMS

Student Hardware

1 - Macintosh Centris 650
1 - MIDI Interface
1 - PCMS Synthesizer
1 - Drum Module
1 - Music Sample Module
1 - Apple LaserWriter IIg

Planned Expansion

Add CD-ROM capability for developing music samples. Additional department funded workstations may be added.

FY95 Recommendation

No Information Technology Plan funded enhancements are planned for FY95.

Westmont Learning Center Lab

Type

Classroom/Open Lab

Description

The Westmont Learning Center Lab is used to provide academic alternative instruction including the Older Adult Institute Program, non-credit classes, and credit courses.

Management

The Open Campus Micro Lab is managed by the Open Campus. Support is provided to students by their instructor. Hardware and software support is provided by Computing and Information Systems on as needed basis.

Student Hardware

2 - IBM PC
2 - Apple II
2 - IBM PS/2 30-286

Operational Hours

Variable

Planned Expansion

Replace existing IBM and Apple student microcomputers with two new PS/2 microcomputers and two PS/2 system board upgrades. Student workstations are not currently networked and should be reviewed for future connectivity in relation to the telecommunications plan.

FY95 Recommendation

Provide one new IBM PS/2 microcomputer and three PS/2 system board upgrades to replace existing equipment.

Westmont Regional Center Computer Lab

Type

Classroom/Open Lab

Description

The Westmont Regional Center Computer Lab is used both as an open lab and a classroom lab. This lab supports Computer Information Systems classes, Office Careers classes and computer supported instruction in a wide range of disciplines. A projection device is attached to the instructor's workstation in the front of the classroom to allow the instructor to project the monitor display to the projection screen.

Management

The Westmont Regional Center Computer Lab is managed by regional center staff. Support in the use of the lab is provided to students by staff or a student lab aide. Technical network support is provided by Computing and Information Systems on an as needed basis.

Operational Hours

Approximately 80 hours per week

Software

Cortez Peters Typing Programs, DOS 6.0, dBase IV, Gregg Typing Programs, Lotus 1-2-3, Microsoft Works for DOS, Spanish Tutor and WordPerfect as well as various other miscellaneous packages.

Student Hardware

31 - IBM PS/2 Microcomputers
8 - IBM Proprinters

Network Equipment

Everex 386 file server
Synoptics 3000 concentrator and Synoptics/Lattisnet LAN hardware

Planned Expansion

The 31 PS/2 55SX microcomputers should be upgraded to 486-based system boards and fixed disks. Add 16 Macintosh and 15 IBM PS/2 microcomputers for lower level expansion. Replace 386-based server with 486-based server and convert Lattisnet lab hardware to 10BaseT. Upgrade black and white LCD panels by replacing with four color LCD panels.

FY95 Recommendation

Upgrade 31 PS/2 55 microcomputers with 486-based system boards and fixed disks. Add 16 new Macintosh and 15 IBM PS/2 microcomputers for lower level expansion. Replace 386-based server with 486-based server and convert Lattisnet lab hardware to 10BaseT. Defer purchase of an additional 15 new IBM PS/2 microcomputers for lower level lab for FY96.

APPENDIX E

ADMINISTRATIVE APPLICATIONS

Academic Alternative Administrative System (ALAN)

Description

ALAN is a LAN based microcomputer system that was implemented in 1991 to provide administrative support for the non-traditional flexible learning courses offered by Academic Alternatives. It provides an appointment scheduling system, comprehensive reporting and administrative support in the form of welcome letters, prompting letters and miscellaneous output including mailing labels.

Hardware Platform

Token Ring LAN(ALAN)/NOVELL

Software

PC/FOCUS

Users

Academic Alternative's Instructional Alternatives faculty and staff located in the Instructional Center Learning Lab and at the Lombard, Glendale Heights, Naperville and Westmont Learning Centers.

Concerns/Problems

The following concerns should be addressed: Currently a COBOL program extracts a data file for the Academic Alternatives courses used by ALAN. This file is downloaded weekly into a PC-FOCUS microcomputer database. It would be a significant improvement if the Student System data could be extracted via mainframe FOCUS and downloaded via PC-FOCUS on a more frequent basis. Currently the process takes 35-40 minutes and is only done weekly. The slow response of the ALAN system is still a concern.

Growth Requirements

We project the growth of the system as follows:

		Projected Records		
	Current	FY95	FY96	FY97
Academic Alter. Student Records	7000	7700	8500	9320
Scheduling Records	2500	2505	3025	3330

Recommendations

The download mechanism needs to be improved by using mainframe FOCUS as described above. The response time of the system also needs to be improved.

Box Office System (ARTSOFT)

Description

This system is a microcomputer-based local area network using software written and maintained by the vendor, Artsoft, Inc. The system consists of several IBM PS/2 microcomputers and printers running proprietary software providing automated management of the Art Center's three theaters. Functions provided include: Ticket processing for three facilities totaling almost 1,100 seats with a combined total of over 120 performances. Ticket reconciliation's, both cash and credit sales. Ticket printing via a Boca ticket

printer. Mailing label creation for marketing efforts. Accounting and management reporting functions.

Hardware Platform

ARCNET LAN(COD)/NOVELL

Software

ARTSOFT

Users

The Art Center staff responsible for the management of the facility are the principal users.

Concerns/Problems

The system is working very well at present. Vendor maintenance support has been good. The current number of three workstations should be increased to allow additional staff in other locations in the Arts Center to use the system. Specific enhancements needed are:

- Expand mailing label feature by allowing a larger library file of mailing label information.
- Provide interface to mainframe-based mailing label system on campus to ease creation and updating of mailing lists by category.
- Add desktop publishing functions to the system to allow creation of programs and promotional materials in-house.
- Addition of at least two additional workstations and a backup ticket printer to provide greater system capacity.

Growth Requirements

The exact rate of growth cannot be directly predicted, although it is likely that the 120 engagements per year should increase steadily over the next several years and total ticket sales could exceed 60,000 in future years.

Recommendations

We recommend a phased expansion of the system hardware as needed over the next three years. Also the network should be converted from ARCNET to 10BaseT/Ethernet to adhere to campus networking standards. We believe the application software is excellent and does not need revision in the future. Additional workstations and expanded reporting, mailing lists, and promotional activities may be developed. This will need to be budgeted by the department.

Campus Scheduling System

Description

A campus scheduling system is an application that provides facility and event scheduling by many areas on campus. It provides an efficient means to identify and track space usage for classroom and non-instructional scheduling. Room scheduling throughout the campus and scheduling for outside events can be accommodated within this system. The system was purchased in FY93 from Universal Algorithm.

Hardware Platform

RS6000/UNIX

Software

C language

Users

Central Campus Counseling, Provosts of Central and Open Campus, Student Activities, Learning Resource Center, Academic Alternatives, Instruction-Central Campus, Media Production, Community Events, Campus Services, and Research and Planning.

Concerns/Problems

None.

Growth Requirements

Not known at this time.

Recommendations

Distributing access of this system to all necessary users is desired. This is dependent on the telecommunications system.

Capital Assets System (CDAS/CA)

Description

The Capital Assets System provides for the tracking of all inventory items owned and maintained by the College. This system also monitors the financial status, determines the location, and holds other data associated with an individual item's account. It was developed in-house using CICS and VSAM files.

Hardware Platform

IBM 9121/VSE/ESA

Software

COBOL,CICS

Users

The Business Office is the main user of this system although other Business Office areas such as Campus Services would benefit from an expanded version Campus Services of the system.

Category

The Capital Assets System was implemented in October 1990 and is functioning well.

Concerns/Problems

Fixed Asset System-Currently there is an estimated 210 hours of administrative programming time required to completely eliminate the existing backlog of problems and enhancements for the Capital Assets System.

Growth Requirements

We project growth of the Capital Assets System to be as follows:

	Current Number	Projected FY95	FY96	FY97
Inventory Records	29,500	31,000	33,000	36,000

Recommendations

Continue to work on the programming request backlog.

College and University Financial System (CUFS)

Description

The College and University Financial System (CUFS) was purchased from American Management Systems (AMS) in 1987 and was implemented in July 1988. It is a complete financial package which will meet all the basic accounting and financial management requirements of the College and the Foundation. Its functions include budgeting, planning, encumbrance control, expenditure accounting, cash disbursements, revenue accounting, accounts payable, accounts receivable, journal vouching, grants management, travel accounting, and a comprehensive purchasing subsystem. Although each function operates independently, the system as a whole is unified via one database, one set of accounting procedures, and one account classification structure which is maintained through a series of master tables.

The system provides financial statements, trial balances, budget vs. actual reports, grants management reports, and transaction listings. There is a high degree of flexibility in reporting with varied roll up capabilities. A personal computer based reporting subsystem also provides for user initiated ad hoc reports. The system also provides the capability for departments to enter their own requisitions on-line.

Hardware Platform

IBM 9121/VSE/ESA

Software

COBOL, CICS

Users

The Business Office is the principal user of this system, although the financial and budget reports are distributed to all administrative areas of the college.

Concerns/Problems

- Enhancements to the system are provided by AMS through new releases of the packages, and are included in our maintenance agreement. Keeping these changes synchronized with any in-house modifications requires careful monitoring.
- This is a very flexible and complex system and training of new employees will be required.
- Currently there is an estimated 830 hours of administrative programming time required to completely eliminate the existing backlog of problems and enhancements for the Business System.

- Need to have CUFS files defined to FOCUS to allow for ad hoc reporting and downloading of data to PCs.
- The Grants process needs to be documented.
- Need to perform document imaging in Accounts Payable and Grants Accounting.
- Need to save, in an up dateable form, account year-end balances for multiple years.
- Need process for developing departmental capital (three year plans) and budget.

Growth Requirements

We project growth of the Financial System to be as follows:

	Current Records	Projected FY95	FY96	FY97
Purchase Orders	32,000	33,000	35,000	37,000
Invoices	107,000	108,000	110,000	112,000
Vendors	30,000	31,000	32,000	33,000
Account Budget Lines	24,000	28,000	32,000	35,000
Journal Entry/Cash Receipt	18,000	20,000	21,000	22,000

Recommendation

The system will provide the required financial management support needed by the college and that its flexibility will allow it to change as the college requirements change. The college should review new releases that are provided by the vendor. We should always maintain a release which is supported by the vendor. The next CUFS upgrade is scheduled for FY96.

Counseling Scheduling System

Description

A new Counseling Scheduling System was developed and implemented in FY94. This is a PC-based application that was implemented in a local area network shared database environment. This system contains a master schedule based upon 15 minute time slots for individual counselors. It can account for the entire counselor's daily schedule for the quarter to maximize the recognition of available counselor time for student appointments.

Hardware Platform

Ethernet LAN(CON)/NOVELL

Software

FOXPRO 2.5

Users

This system is used by the Central Campus Counselors located in the IC building.

Concerns/Problems

None at this time.

Growth Requirements

We project the growth of the system as follows:

	Current Records	Projected FY95	FY96	FY97
Appointment Database	12,600	13,000	14,000	15,000
Counselor Database	30	35	40	43
Student Database	3,000	3,200	3,400	3,700

Recommendations

It is anticipated that the use of this system will need to be expanded to all college counselors at all locations. The expansion will be provided through the new telecommunication system.

Degree Audit System (CDAS/DE)

Description

This system will report, on demand, a student's progress toward a particular degree and/or certificate. It provides various areas information concerning completed, as well as remaining, requirements in order to assist the counseling and advising process.

Hardware Platform

IBM 9121/VSE/ESA

Software

COBOL, CICS

Users

Records Office and Counseling

Concerns/Problems :

Users need to ability to request and receive degree audit information via an on-line function. Need to implement the transfer articulation module for this system.

Growth Requirements

We project the growth of the system as follows:

	Current Records	Projected FY95	FY96	FY97
Requirements	27,600	35,000	42,000	48,000
Student Exception	4,500	6,000	8,000	10,000

Recommendation

The on-line degree audit function would be beneficial in providing information to the student within an advising session. The college should upgrade to the newest release and acquire the transfer articulation module to allow use of the transfer credit function. The module will cost $15,000.

Financial Aid System (CDAS/FA)

Description

The Financial Aid System was developed internally to integrate with the student system. The system's main function involves processing financial aid

awards including Flat, Illinois Student Assistance Commission, Pell, IVG, and Illinois Guaranteed Loans. Financial Aid application, tracking, verification of enrollment and regulatory reporting are other major functions of this system. The system is an on-line application with batch reporting capabilities.

Hardware Platform

IBM 9121/VSE/ESA

Software

COBOL, CICS

Users

The Financial Aid Office is the principal user of this system with the Business Office requiring some reporting capabilities.

Concerns/Problems

Continued maintenance is needed for this system due to the changing federal and/or state regulations regarding financial aid awards. The system undergoes maintenance at the end of the fiscal year to set up the programs for the new fiscal year. A major concern of the existing system is a need for updated and improved user documentation. This is especially important since major changes to on-line screens, calculations and reports have been made. Currently there is an estimated 805 hours of administrative programming time required to completely eliminate the existing backlog of problems and enhancements for the Financial Aid system.

Growth Requirements

We project growth of the Financial Aid System to be as follows:

	Current Records	Projected FY95	FY96	FY97
Master File	148,400	168,000	188,000	200,000

Recommendations

We recommend that the required improvements be made in-house with Computing and Information Systems or programming consultants. We believe the major modifications to this system have been successful. This system should provide worthwhile service for several years until the acquisition of a comprehensive integrated student database system.

FOCUS Ad hoc Reporting System

Description

The FOCUS Ad hoc Reporting System was purchased from Information Builders in FY93. Ad hoc reporting provides the user with the capability to produce their own reports or to extract data that can be downloaded to a PC for further use with a database tool (i.e. Paradox, Lotus, etc.). The user has the flexibility to extract, sort, summarize, and total the data to create information that is useful. It currently allows access to the major mainframe applications such as Human Resources, CDAS Student System, and the CUFS Financial System. With proper training end users can generate ad hoc reports and download data from the mainframe files of these major systems.

Currently the following systems are defined to FOCUS:

- Capital Assets System (CDAS/CA)
- Human Resources Management System (HRMS)
- Position Control System (CDAS/PC)
- Student Records System (CDAS/SR)

Hardware Platform

IBM 9121/VM/CMS

Software

FOCUS language

Users

The Business Office and Human Resources are currently the most active users. The Administrators were provided with access to the Student Records System in FY93.

Concerns/Problems

The Business Office needs the CUFS files to be defined to the FOCUS system.

Growth Requirements

Permanent disk space will be required as data is extracted and saved for future reporting needs.

Recommendations

Define the additional systems to FOCUS and provide disk space for storage of summary data. Review add-on FOCUS window-based products for possible implementation in FY95.

Human Resources Management System (HRMS)

Description

The Human Resources System is a VSAM-based application providing for the full payroll function and reporting as well as maintaining a personnel database containing employment, history, demographic, benefit and personal information. Salary, time reporting, job status, employee history, personal data and benefit data are updated and stored in integrated VSAM files. This system was purchased from Integral Systems in late 1985 and was implemented in August 1987. This comprehensive database product was modified to tailor it to our hardware and user processing requirements.

Hardware Platform

IBM 9121/VSE/ESA

Software

COBOL, CICS

Users

Human Resources and the Business Office are the principal users of Business Office the system, including the responsibilities for data entry and updating.

Concerns/Problems

A short range as well as continuing concern is the need to apply upgrade releases to the HR package.

Additional continued maintenance will be required to apply tax and statutory changes to the system. It is important that system modifications be closely examined concerning their impact on both regular tax and statutory changes as well as vendor release upgrades.

Applicant tracking is not contained in our current system and a need exists to develop or purchase a system that will interface with the personnel data on this system.

Need to be able to download data to a PC.

Need to implement a cafeteria style benefits package for fringe benefits

Develop an application within the Voice Response System for job openings

An imaging system is needed for data filing of employees and applicants. Also develop an on-line system for viewing the applicant pool

Develop the classified handbook into an on-line system that is available for college-wide viewing.

Currently there is an estimated 6,460 hours of administrative programming time required to completely eliminate the existing backlog of enhancements for the Human Resource System.

Growth Requirements

We project the growth of the system as follows:

	Current Records	Projected FY95	FY96	FY97
Employee Records	6,900	6,950	7,000	7,050
History File	92,700	98,000	100,000	105,000
Employee Base File	70,000	73,000	75,000	79,000

Recommendation

We will be investigating new application products available for implementation in Human Resources. This system will require ongoing program maintenance to apply tax, benefit, and other regulatory and institutional modifications. In addition we will continue to work on user programming requests.

Job Matching System

Description

A Job Matching System was developed for Career Planning and Placement. This PC-based system was implemented in a local area network shared

database environment in FY93. It helps them place students in the appropriate employment opportunities with employers in our district.

Hardware Platform

Token Ring LAN(CPP)/NOVELL

Software

FOXPRO 2.0

Users

The principal user is the Career Planning and Placement Office.

Concerns/Problems

None at this time.

Growth Requirements

We project the growth of the system as follows:

	Current Records	Projected FY95	FY96	FY97
Employer Database	2,500	4,000	7,000	10,000
Job Database	3,800	8,500	12,000	15,000
Student Database	320	550	720	920

Recommendations

The users have requested that a resume package be developed that can link to the employer jobs available to perform a matching function.

Library System

Description

The library's automated system uses a Digital Alpha microcomputer. Presently, it is able to support the hardware being used within the library, listed below. The first two modules of the system were installed in 1989; the most recent module, the materials booking module, was installed in 1991. The Library System is a "turnkey" system both for system and application software. The UNIX System V - based system, as well as application code, is developed, maintained and enhanced by the vendor, Innovative Interfaces, Inc.. System changes are applied either by magnetic tape supplied by the vendor or via vendor dial-up access directly into the library system from their location.

Hardware Platform

DEC ALPHA/UNIX 3000

Software

INNOPAC

Concerns/Problems

Additional support equipment (PCs, printers, ports, scanners, and modems) will need to be added annually to support all College requirements and locations of needed terminals.

Accessing CD-ROM programs through INNOPAC within the LRC will need to be explored; if so, additional printers will be needed.

Networking the system throughout the College should be explored in the next one to two years.

Accessing and using the system off campus via modems should be explored in the next one to two years.

LRC needs to plan for the completion of SRC+ and the needed PCs, printers, etc. for this additional space.

As Innovative Interfaces develops desirable new modules, funds will be needed to acquire these modules.

A cycle to replace system equipment should be implemented in FY94 to replace equipment more than six years old (terminals, scanners, printers, etc.).

Integrate the library system as a selection within the Voice Response System.

Develop a system to allow patrons to checkout their material themselves.

Migrate to a PC-based solution for the existing terminals.

Growth Requirements

We project the LRC will experience continued steady growth in the number of items in the collection, patron use, and a number of PCs needed to meet user demands. We believe for LRC services the recommendations listed below will meet the continuing demand.

The projected growth of this system for the next three years follows:

	Current Records	Projected FY95	FY96	FY97
Authority	55,000	58,000	61,000	64,000
Bibliographic Records*	159,000	64,000	169,000	74,000
Check-in	5,000	5,000	6,000	6,000
Course	500	500	500	500
Item	200,000	200,000	200,000	208,000
Order	15,000	15,000	16,000	16,000
Patrons Transactions	72,000	74,000	76,000	78,000

*Does not include LRC Long Range Plan recommendations

Recommendations

We recommend that the Library System be enhanced by the addition of micros and printers in the new SRC+, connectivity to the enterprise network, and greater off-campus use of the system. In addition, voice response and self-checkout systems should be implemented in future years.

Mailing List System (CDAS/ML)

Description

The Mailing List System is an in-house system developed for the Public Information Office. It is written in COBOL language using CICS and VSAM files. The system currently has approximately 155,000 members divided into 589 lists. The general functions of the Mailing List System include the following:

- Easily create and maintain different lists using the same members
- Display all or selected lists
- Print reports and labels
- Sort or select individual members in lists
- Relate members in lists from person-to-person or from business-to-business

Hardware Platform

IBM 9121/VSE/ESA

Software

COBOL, CICS

Concerns/Problems

None at this time.

Recommendations

None at this time.

Management Information System (MIS)

Description

This is a reporting system only at this time. It extracts summary and detail data from the College of DuPage Administrative Systems (CDAS) to provide empirical information required for institutional planning and reporting and the Illinois Community College Board regulations. Other functions include providing data required for State and Federal reporting and forecasting trends for strategic planning. The MIS system is currently composed of the following component reports:

- MIS6010 and MIS6015 Summary of A1 report-(Student enrollment in programs and program graduates)
- MIS7010 Total Enrollment Characteristics Options
- MIS7015 Staffing Profile Curriculum Options
- MIS3000 Facilities Profile
- MIS4000 Mailing Labels
- SPSSX Mainframe Statistical Analysis
- MIS4050 Series ICCB Graduate Tracking
- AS Trendbook Historical Summary of College Statistics

Hardware Platform

IBM 9121/VSE/ESA

Software

COBOL

Users

The principal users of this system output are all college administrative departments. Secondary use of the MIS output is made by the Board, faculty, staff, and students.

Concerns/Problems

Scheduling can be a problem due to the large volume of records that must be read.

The MIS7000 data should be made readily available, perhaps via electronic mail.

A major analysis of the annualized records is needed for use in a research student flow model.

An easily accomplished downloading method should be established to allow the Research Office access for personal or Application System (AS) computing use.

A new report series, similar to the 10th day reports, is needed by the Deans for their specific analysis.

Currently there are 480 hours of programming backlog for the MIS System.

Growth Requirements

We project the following growth for this system:

	Current Records	Projected FY95	FY96	FY97
MIS Annualized Records	100,000	107,000	115,000	122,000

Recommendations

We recommend that the MIS System continue to be developed in-house to meet users' needs. In addition develop the use of FOCUS to enhance the reporting capabilities.

Position Control System (CDAS/PC)

Description

The Position Control System provides the ability to maintain information for all college positions. Basic information is stored about a position, its budget and expense data, and incumbent information. The incumbent, budget and expense information is automatically updated by the HRMS. The approved budget information will then automatically update budget data in CUFS. The system provides on-line updating of all college positions. Separate screens were developed for position, budget expense and incumbent information updating. Numerous reports are also available.

Hardware Platform

IBM 9121/VSE/ESA

Software

COBOL, CICS

Users

Finance Office and Human Resources.

Concerns/Problems

None at this time.

Growth Requirements

We project growth of the Position Control System to be as follows:

	Current Records	Projected FY95	FY96	FY97
Position Control File	11,400	12,000	12,500	13,800

Recommendations

None at this time.

Scanning System

Description

The NCS OpScan 10 Optical Mark Reading System was purchased (from National Computer Systems) and installed in FY93. It reads the markings of a #2 pencil on specific types of special forms and converts that to 'machine readable' data. This data is then written to a diskette and transferred to tape for processing on the IBM mainframe. The NCS OpScan 10 has graphic displays for operator interface, performs skew detection/correction automatically, rejects and stacks sheets separately, and has multi-sheet detection.

Hardware Platform

NCS OpScan 10 model 40/MS DOS

Software

SCANTOOLS Software

Users

Academic Faculty and Deans, Administrative Offices, Records Office, Registration Office, Student Activities, Classified Personnel Association and Nonprofit Organizations.

Concerns/Problems

None at this time.

Growth Requirements

We project the use of the Mark Optical Reader to be as follows:

	Current Records	Projected FY95	FY96	FY97
General Purpose Answer Sheets	50,900	51,480	52,700	54,000
Final Grade Sheets	14,000	14,300	14,900	15,500

Mid-Quarter Enrollment Verify.	13,600	13,800	13,900	14,000

Recommendation

The NCS OpScan 10 model 40 microcomputer based system is meeting the college's needs adequately at this time.

Student Billing and Receivable System (CDAS/BR)

Description

This system is a major module in the CDAS on-line system. It manages all student financial data related to the Student Record System and the Financial Aid System. The system maintains the student's account through the payment cycle (cash, financial aid, credit card). In addition to producing financial reports, the system prints schedule/bills and maintains history information. The Billing and Receivable System (CDAS/BR) maintains two major files, the Master Detail file (MDF) and the Subcode file (BRSCF). The MDF maintains detail billing information on each student while the Subcode file contains information relating to a five-digit code identifying various types of transactions allowed.

Hardware Platform

IBM 9121/VSE/ESA

Software

COBOL, CICS

Users

The principal users of this system are the Business Office, the Financial Aid Office and the Registration Office.

Concerns/Problems

Only six quarters of detailed student transactions are kept on-line. The Business Office needs to retain all outstanding balances for students on-line rather than rolling them over.

Manual adjustments to the accounts of students on financial aid are not being handled by the system in an appropriate manner. An automated collection/monitoring process needs to be implemented that would track and notify overdue student accounts.

Currently there is an estimated 200 hours of administrative programming time required to completely eliminate the existing backlog of problems and enhancements for the Billing and Receivable System.

Growth Requirement

We project growth of this system for the next three years to be as follows:

	Current Records	Projected FY95	FY96	FY97
Subcode	1720	1800	1900	2000
Master Detail File	1,825,000	1,900,000	2,000,000	2,100,000

Recommendation

Since the present system will remain in place for at least three years, we recommend that steps be taken to alleviate the major problems. This includes developing a subsystem which monitors the steps in bill collection and which interfaces with the current system. The above concerns/problems will be addressed within the recommendation for the Student Records System.

Student Records System (CDAS/SR)

Description

This system develops and maintains all data necessary to support student functions. These functional areas include admissions, scheduling, registration, grades, and transcript generation. Information is provided for instructors including courses, classes, and fees involved. The Student Record System (CDAS/SR) is responsible for all information pertaining to a student's academic record as well as information concerning all possible course offerings. Ten major files are required to provide this information:

1. Student Key File (SKF) - contains demographic data.
2. Student Key File #2 (SKF2) - contains degree information, activity codes, MPE scores, etc.
3. Student Term File (STF) - contains information regarding the student classes taken each quarter.
4. Course Inventory File (CIF) - contains information concerning each course the institution has received permission to offer.
5. Course Term File (CTF) - contains individual class section information.
6. Class Roster File (CRF) - contains a list of all students enrolled in each section of each course within a term.
7. Transcript Text File (TTF) - contains information required for production of student transcripts.
8. Publishers Comment File (PCF) - contains information concerning individual course requirements or prerequisites.
9. Major Code File (MCF) - contains information regarding all major codes and their corresponding state information. It may be used for all programs needing major code information.
10. Faculty Assignment File (FAC) - contains course records that are assigned to instructors for a specific term.

Hardware Platform

IBM 9121/VSE/ESA

Software

COBOL, CICS

Users

The major users of this system are: Records, Registration, Instructional Services, Business Office, Financial Aid.

Concerns/Problems

The number and complex nature of the interactions among the files of this system make modifications, enhancements or error corrections extremely

difficult. A new system should possess an integrated file structure allowing easier access to data elements that currently reside in separate files.

The SR System currently has a backlog of 2,215 programming hours to satisfy current user requests.

Improved transcript processing including the scheduling of transcript generation is needed.

More efficient entry of grades is needed. Currently, grades are hard copied onto opscan forms to be entered into the Student Records System.

Sophisticated on-line degree audit and transfer credit evaluation methods are needed.

Need the ability to send/receive transcripts electronically.

Need the ability to automate the transfer of test scores (from the Testing Lab) into the Student Records System.

An imaging system is needed for a variety of documents.

Growth Requirements

We project the growth for the SRS files listed below as follows:

	Current Records	Projected FY95	FY96	FY97
Class Roster	2,375,000	2,620,000	2,900,000	3,200,000
Course Term	80,200	200,000	225,000	250,000
Student Key	453,000	480,000	500,000	530,000
Student Key #2	453,000	480,000	500,000	530,000
Student Term	2,475,000	2,600,000	2,900,000	3,300,000
Transcript Text	463,000	475,000	490,000	520,000
Faculty Assign	11,000	11,300	11,600	12,000

Recommendation

We recommend the implementation of an electronic data interchange (EDI) to allow electronic transfer of transcripts to other institutions in FY95. In addition a bar-coding printer function should be purchased in FY95 to reduce the mailing costs for student grades. This would be a modification of the Student Records System bulk mailing programs.

Voice Response System

Description

This system is a PC-based product that interfaces with our CICS on-line system. It currently processes only one application. The telephone registration application allows students to perform registration functions via a touch-tone telephone. It has been developed to allow students to add a class, drop a class, hear their class schedule, hear their outstanding balance and pay by credit card, and modify their personal identification number. It is defined to handle fifteen telephone calls simultaneously.

Hardware Platform

Computer Communications Specialists 386/16 lines

Software

C.C.S Firstline SCRIPT language

Users

The principal users of this application are students.

Concerns/Problems

Currently there is an estimated 60 hours of administrative programming time required to completely eliminate the existing backlog of problems and enhancements for the telephone registration application.

The Learning Resource Center needs an interactive application developed for the library system.

The Job Matching System needs to be developed as an interactive application.

Incorporating some Human Resource functions as an application should be investigated.

Recommendations

Purchase additional phone lines in FY96 for use in other applications.

LIST OF DEPARTMENT REQUESTED APPLICATIONS

The following list includes the area requesting the application, the type of application requested, and comments based on a preliminary analysis by Computing and Information Systems to determine whether the best solution would be an IBM mainframe application, LAN-based system or a stand-alone microcomputer application. Each of these items requires further analysis and the assignment of an overall priority.

	Type of Application	Comments
Academic Alternatives		
	Distance Education Program	Mainframe-Based
	Digitized Student ID	
	Electronic Testing Transfer	
	E-mail	
Admission/Records/Registration		
	Transcript Processing Enhancements	Mainframe-Based
	On-line Degree Audit	Mainframe-Based
	E-mail	
	Electronic Transmission of Transcripts	Mainframe-Based
	Electronic Grade Submission	Mainframe-Based

Auxiliary Services	USPS Bar-coding	Mainframe-Based
	E-mail	
	Automate Staff Services Billing	
Campus Services	Facility Scheduling System	Mainframe-Based
	E-mail	
Career Planning/Placement		
	Job Bulletin Publication	
	Job Matching-Voice Response	Microcomputer-Based
	E-mail	
Central Campus Counseling	Retention System for Student-Records-Download	Mainframe-Based
Central Campus		
	Scheduling System	Mainframe-Based
	Transfer Articulation	Mainframe-Based
	E-mail	
	Student Tracking System	Mainframe-Based
	On-line Degree Audit	Mainframe-Based
Communications	Scheduling System	Mainframe-Based
	E-mail	
Community Events	Enhanced Mailing System	Mainframe-Based
	E-mail	
Financial Aid	Direct Student Loan Program	Mainframe-Based
	E-mail	
Financial Affairs	Document Grants Process	Mainframe-Based
	E-mail	
	Monitor Student A/R	Mainframe-Based
	CUFS multiple years data	Mainframe-Based
	CUFS defined to FOCUS	Mainframe-Based
Health and Special Services		
	E-mail	
	Voice Mail System	
	Student Absences System	
	Interpreter Schedule Academically Disadvantaged	
	Scheduling System	Mainframe-Based
Human Resources	E-mail	
	Cafeteria Benefits Package Enhancements	Mainframe-Based
	Imaging/Applicant Tracking	Mainframe-Based
	On-line Employee Handbook	Mainframe-Based
	HR functions Voice Response	Microcomputer-Based
Humanities	Scheduling System	Mainframe-Based

	E-mail	
Instructional Design		
	Imaging Technology	Microcomputer-Based
	E-mail	
Instruction-Central Campus		
	E-mail	
	Room Scheduling	
	E-mail	
	10th Day Reporting	Mainframe-Based
Learning Resource Center		
	Self Checkout System	
	Voice Response System-Library System	
	E-mail	
Media Production	Authoring	Microcomputer-Based
	Facility Scheduling	Mainframe-Based
	E-mail	
Natural Sciences	Room Utilization	Mainframe-Based
	E-mail	
Public Information	Off Campus Publication	Mainframe-Based
	E-mail	
Provost Central Campus		
	Job Placement System	Microcomputer-Based
	Facility and Classroom Scheduling	
	Part-time Faculty Reports	Mainframe-Based
Provost Open Campus		
	Mailing Label System	
	Electronic Mail Between Regional Centers/Open Campus	
Regional Centers	E-mail	
Research and Planning		
	Better SPSS Capabilities	Mainframe-Based
	E-mail	
	Space Utilization	Mainframe-Based
Social & Behavioral Sciences		
	E-mail	
Student Affairs	Campus Scheduling	Mainframe-Based
	E-mail	
Technology	Room Scheduling	
	E-mail	

Testing	Electronic Transfer of Test Scores	
	E-mail	
VP-Administrative Affairs		
	USPS Bar-coding	Mainframe-Based
	Board Policies On-line	
	E-mail	
	Imaging	
VP-Planning & Info	Student Transfer System	Mainframe-Based

NEW APPLICATIONS FOR FY95

The following describes each new application, defines who would be the users, what are the application's resource requirements, and the estimated cost.

Campus Information System

Description

A campus information system will provide on-line access for students, staff and the district to campus information on campus events, activities, phone directory, courses and any other beneficial information. The system would consist of kiosks located throughout the campus and perhaps at locations off campus. The kiosk may serve as a one-stop shopping for information about the college.

Hardware Platform

LAN-based NOVELL

Software

To be determined

Users

Students, staff, and residents of the district.

Growth

Once the system is available we expect significant increase of 20 to 30 percent each year.

Recommendation

We recommend purchasing a Campus Information System over the next several years. We can start with a few stations in FY96 and FY97 and increase as the demand increases.

Electronic Data Interchange (EDI)

Description

A need for the electronic transmission of student records exists at the college. A major benefit of an EDI system (Example: SPEEDE/ExPRESS) is

that institutions using the standard forms to send and receive student records will be better able to interpret information from other institutions. Also, the time needed to send and receive information is greatly decreased.

Hardware Platform

IBM 9121/VSE/ESA

Software

SPEEDE/ExPRESS

Users

The Records Office would be the primary users. Internal staff time.

Recommendation

We recommend implementing an electronic data interchange in FY95.

Electronic Mail System

Description

An electronic mail system needs to be implemented to provide a means of communication for faculty, staff, students, and administrators throughout the campus. This system will be used as a tool for more efficient communication.

Hardware Platform

LAN-based NOVELL

Software

To be determined.

Users

All College Users.

Category

The electronic mail system will have to be integrated into the infrastructure of the telecommunications system.

Cost

$30,000

Recommendation

The telecommunications system's wiring should be installed for all locations before the electronic mail system's implementation begins.

Electronic Grade Submission

Description

Providing the capability to allow instructors to submit their final grades electronically would be save both money and time for the institution. Special forms that are currently used for submission would no longer be necessary. The existing turnaround time necessary to create, distribute, collect, and process the forms would also be more efficiently handled.

Hardware Platform

IBM 9121/VSE/ESA

Software

COBOL, CICS

Users

Faculty, Records and Registration Offices.

Cost

Internal staff time.

Recommendation

We recommend the design and development of the electronic data submission system in FY96. This new procedure to submit grades electronically will be an in-house developed, mainframe-based application.

Inplant Management Information System for BPI

Description

An inplant management information system needs to be developed for the Business and Professional Institute. An extreme need exists to integrate the existing student, billing, and financial systems

Hardware Platform

IBM 9121/VSE/ESA

Software

COBOL

Users

Business and Professional Institute will be the primary users.

Cost

Internal staff time.

Recommendation

We recommend the design and development of an inplant management information system in FY96.

Student Tracking System

Description

Student tracking will provide longitudinal data on students that attend College of DuPage. The system will establish patterns of student enrollment and experience, help isolate and identify particular types of students, control for student background and establish connections between obtained assessment results and student experiences and provide a vehicle for effectively integrating information from diverse sources and locations

Hardware Platform

IBM 9121/VSE/ESA

Software

COBOL, CICS

Users

Research and Planning Office will be the primary users. application.

Cost

Student tracking will be an in-house developed, mainframe-based application.

Recommendation

We recommend the design and development of the student tracking system in FY94 with internal staffing and some external programming consultants.

USPS Bar-coding

Description

In order to qualify for future United States Postal Service automation discounts and sortation, the current 'zip + 4' coding will need to be modified. The need to provide a printing function that translates the address and nine-digit zip code into a bar-coding print exists. This would need to be designed, developed, and implemented for all the college's bulk mailings.

Hardware Platform

IBM 9121/VM/3835 laser printer model 1

Software

Print Service Facility (PSF)

Users

Staff Services

Cost

Internal staff time to modify existing mainframe-based programs plus the cost of the printer function.

Recommendation

We recommend the purchase of the printer function and the implementation of the mainframe-based programs in FY95.

Voice Response System Applications

Description

A number of applications need to be incorporated into the existing Voice Response System. Three new applications have been requested: interaction with the Library System, interaction with the Job Matching System, and development of various Human Resources functions.

Hardware Platform

Computer Communications Specialists 386/16 lines

Software

CCS Firstline SCRIPT language

Users

All college users and community members.

Cost

Internal staff time plus cost of additional phone lines.

Recommendation

We recommend the design and development of the new Voice Response System applications in FY96.

APPENDIX F

INFORMATION TECHNOLOGY FINANCIAL WORKSHEET

INFORMATION TECHNOLOGY PLAN WORKSHEET
Fiscal Year 1994-95

Academic Computing Plan

Item No.	Area/Department/Lab	Description	– Replacement Systems – Qty	Unit Price	Capital	— New Systems — Qty	Unit Price	Capital	Defer Qty	Capital	Prio
	Student Labs										
	Central Campus										
	Business & Services										
1.00	Travel Tourism Lab-IC2003										
1.10	20-PC's**	PS/2 -New	20	$2,400	$48,000	16	$2,400	$38,400			
1.20		Server/Concentrator				1	$24,000		1	$24,000	
1.30		Printer				1	$4,500		1	$4,500	
1.40		NIC's/Wiring				26	$200		26	$5,200	
1.50		Furniture				36	$1,000	$36,000			
2.00	CIS 1108 Lab										
2.10	10-PS/2 50Z *	PS/2-New	26	$2,400	$62,400	10	$2,400	$24,000			
2.20	15-PS/2 56* 1-PS/2 57*										
	Office Careers IC 3R										
3.10	11-PS/2 50Z	PS/2-Upgrade	11	$1,000	$11,000						
3.20	14-PS/2 30*	Server/Concentrator				1	$24,000		1	$24,000	
3.30	Reuse 10 PS/2 50Z - CIS 1108	Printer				1	$4,500		1	$4,500	
3.40		NIC's/Wiring				26	$200		26	$5,200	
	Communications										
4.00	IC2105 Lab										
4.10	24-PC**	PS/2-New	24	$2,400	$57,600						
4.20		NIC's	24	$100	$2,400						
5.00	K127 Lab										
5.10	26-PS/2 56										
5.20	Reuse 10 PS/2 56 from CIS1108	Network/10BaseT				10	$100	$1,000			
5.30		Host Modules				1	$1,200	$1,200			
	Natural Science										
6.00	IC TBD	PS/2-New				18	$2,400	$43,200	18	$43,200	
6.10		Furniture				18	$1,000	$18,000	18	$18,000	
7.00	K BLDG ***	PS/2-New				36	$2,400	$86,400			
7.10		Concentrator/Memory/Disk				1	$15,000	$15,000			
7.20		Printers				2	$2,500	$5,000			
7.30		NIC's/Wiring				36	$200	$7,200			
7.40		Furniture				36	$1,000	$36,000			

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Academic Computing Plan

Item No.	Area/Department/Lab	Description	– Replacement Systems – Qty	Unit Price	Capital	—— New Systems —— Qty	Unit Price	Capital	Defer Qty	Capital	Prio
	Occupational & Vocational										
8.00	Architecture Lab										
8.10	6-386's*	486/66mz-New	6	$3,000					6	$18,000	
9.00	Numerical Control										
9.10	10-386*	486/66mz-New	10	$3,500					10	$35,000	
10.00	Commerical Arts -AC161***										
10.10		MAC-Quad-New				18	$3,100		18	$55,800	
10.20		Server/Concentrator				1	$24,000		1	$24,000	
10.30		NIC's/Wiring				18	$200		18	$3,600	
10.40		Color Printer				1	$3,500		1	$3,500	
10.50		Color-Diasub				1	$5,000		1	$5,000	
10.60		Furniture				18	$1,000		18	$18,000	
11.00	Graphics Arts-M106										
11.10		MAC Quad-New				16	$3,100		16	$49,600	
11.20											
	Learning Resource Center										
12.00	LRC Lab										
12.10	16-PS/2 30**	PS/2-New	16	$2,400	$38,400				14	$33,600	
12.20	8-PS/2 55	PS/2-Upgrade	8	$1,000	$8,000						
12.30	2-PC*	PS/2-New	2	$2,400	$4,800						
12.40		MAC-New				4	$3,100	$12,400	6	$18,600	
12.50	386	Server/Concentrator				1	$27,600		1	$27,600	
12.60		NIC's				49	$100		49	$4,900	
13.00	CD-ROM Lab										
13.10	10-PS/2	PS/2-New				8	$2,400	$19,200	8	$19,200	
13.20	4-CDROMs	16-CD Server	1	$10,000	$10,000				1	$10,000	
13.30	13-Dot Matrix	Laser printers				4	$1,000	$4,000	4	$4,000	
13.40	386/Server	Server/Concentrator	1	$10,000	$10,000	1	$12,000	$12,000	1	$12,000	
13.50		NIC's				13	$100	$1,300	13	$1,300	
	Shared Institutinal Labs										
14.00	Seaton Computing Center										
14.10	200-PS/2 55	PS/2-Upgrade	100	$1,000	$100,000				100	$100,000	
14.20	35-MAC SE,s*	MAC-Quad-New	35	$3,100	$108,500						
14.21	Lattisnet	Network/10BaseT	35	$100	$3,500						
14.22		Host Modules	3	$1,200	$3,600						

Academic Computing Plan

Item No.	Area/Department/Lab	Description	– Replacement Systems – Qty	Unit Price	Capital	—— New Systems —— Qty	Unit Price	Capital	Defer Qty	Capital	Prio
14.30	CADD 31-386/33mz*	486/66mz-New	31	$3,000	$93,000	6	$5,000	$30,000			
14.31		Furniture				6	$1,000	$6,000			
14.32		Printer-Laser				1	$3,500	$3,500			
14.33	Lattisnet	Network/10BaseT	31	$100	$3,100	6	$100	$600			
14.34		Host Modules	4	$1,200	$4,800	1	$1,200	$1,200			
15.00	K-BLDG Lab	MAC-Quad-New				4	$3,100	$12,400	6	$18,600	
15.10		Network/10BaseT				4	$100	$400	6	$600	
15.20		Host Modules				1	$1,200	$1,200			
15.30		Furniture				4	$1,000	$4,000	6	$6,000	
	Open Campus Academic Affairs										
16.00	Naperville Lab										
16.10	31-PS/2 55	PS/2-Upgrade	31	$1,000	$31,000						
16.20		PS/2-New				10	$2,400	$24,000	20	$48,000	
16.30		MAC-New				16	$3,100	$49,600			
16.31	386 Server	486/Server	1	$10,000	$10,000						
16.32	Lattisnet	Host Modules	3	$1,200	$3,600						
16.33		Host Modules				2	$1,200	$2,400	1	$1,200	
16.34		Printer				2	$3,500	$7,000			
16.35		NIC"s 10 BaseT	31	$100	$3,100				15	$1,500	
16.36		NIC"s/Wiring				28	$200	$5,600	23	$4,600	
17.00	Addison Lab										
17.10	49-PS/2 50	PS/2-Upgrade	49	$1,000	$49,000						
18.00	Westmont Lab										
18.10	31-PS/2 55	PS/2-Upgrade	31	$1,000	$31,000	10	$2,400	$24,000	20	$48,000	
18.20		MAC-New				16	$3,100	$49,600			
18.30	386 Server	486/Server	1	$10,000	$10,000						
18.40	Lattisnet	Host Modules 10Base/T	3	$1,200	$3,600	2	$1,200	$2,400	1	$1,200	
18.50		Printer				2	$3,500	$7,000			
18.60		NIC"s 10 BaseT	31	$100	3,100				15	$1,500	
18.70		NIC"s/Wiring				28	$200	$5,600	20	$4,000	

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Academic Computing Plan

Item No.	Area/Department/Lab	Description	– Replacement Systems – Qty	Unit Price	Capital	—— New Systems —— Qty	Unit Price	Capital	Defer Qty	Capital	Prio
19.00	**Academic Alternatives**										
19.10	Learning Lab-IC										
19.11	3-HP, 3 Apple II	PS/2-New	6	$2,400	$14,400						
19.20	Learning Center-Glendale										
19.21	3-HP, 1 Apple II	PS/2-New	4	$2,400	$9,600						
19.30	Learning Center-Lombard										
19.31	1-HP, 1-Apple II	PS/2-New	2	$2,400	$4,800						
19.40	Learning Center-Naperville										
19.41	1-IBM PC, 1-Apple II	PS/2-New	1	$2,400	$2,400						
19.42	3-IBM PS/2 286	PS/2-Upgrade	3	$1,000	$3,000						
19.50	Westmont Learning Center										
19.51	2-IBM PC, 2-Apple II	PS/2-New	2	$2,400	$4,800						
19.52	2-IBM 286	PS/2-Upgrade	2	$1,000	$2,000						
19.60	ESL Lab										
19.61	2-IBMPC	PS/2-New	2	$2,400	$4,800						
	Faculting Computing										
30.00	**Offices/Suite Computer Systems**										
30.11	Reuse 29-MAC SE	Seaton Computing Center									
30.10	Reuse 5-PS/2 56	CIS1108 Lab									
30.11	Reuse 7- 386	CADD									
30.12	Reuse 14-PS/2 30	Office Careers									
30.13	Current Systems										
30.20	67-IBM 55	PS/2-New				20	$2,400	$48,000	40	$96,000	
30.30	17-Mac+,SE	Mac-New				10	$3,100	$31,000	20	$62,000	
31.00	Department checkout	PS/2-MAC				5	$2,400	$12,000	5	$12,000	
32.00	Hardware Grant							$15,000			
33.00	Teaching Center	PS/2-Multimedia				1	$4,500	$4,500			
33.10		MAC/Multimedia				1	$5,500	$5,500			
34.00	Regional Centers										
34.10	Naperville	PS/2-New				2	$2,400	$4,800			
34.20	Westmont	PS/2-New				2	$2,400	$4,800			
34.30	Davea	PS/2-New				2	$2,400	$4,800			

Academic Computing Plan

Item No.	Area/Department/Lab	Description	– Replacement Systems – Qty	Unit Price	Capital	—— New Systems —— Qty	Unit Price	Capital	Defer Qty	Capital	Prio
	Classroom Computing										
35.00	**Bunkers**										
35.10	Naperville	PS/2-New				1	$12,000	$12,000			
35.20	Westmont	PS/2-New				1	$12,000	$12,000			
35.30	Davea	PS/2-New				1	$12,000	$12,000			
35.40	Central Campus****	PS/2-New				2	$12,000	$24,000			
36.00	**Overheads**										
36.10	Business & Services										
36.11	5-PC	PS/2-New	2	$2,400	$4,800				3	$7,200	
36.12	B/W LCD	Color LCD Panel	2	$3,500	$7,000				3	$10,500	
36.20	Natural Science										
36.21		PS/2-New				1	$2,400	$2,400	1	$2,400	
36.22		Color LCD Panel				1	$3,500	$3,500	1	$3,500	
36.30	Seaton Comuting Center										
36.30	B/W LCD	Color/LCD	4	$3,500	$14,000						
	Total Academic Computing				**$785,100**			**$793,100**		**$901,100**	

*** PC's and MAC's available for reuse**
****Units are to be disposed**
*****Advanced Technology Funding**
******New Initiatives Funding**

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Administrative Computing Plan

Item No.	Area/Department/Lab	Description	– Replacement Systems – Qty	Unit Price	Capital	—— New Systems —— Qty	Unit Price	Capital	Defer Qty	Capital	Prio
	Administrative Applications										
40.00	Library System										
40.10		PS/2-New				16	$2,400	$38,400	13	$31,200	
40.20	10-Thermal	Laser	10	$600	$6,000	15	$600	$9,000	15	$9,000	
40.30		Port Expansion				16	$1,950	$31,200	16	$31,200	
40.40		Hand Scanner				1	$1,500	$1,500			
40.50		Table Scanner				1	$2,107	$2,107			
40.60		Z 39 System							1	$11,500	
41.00	Degree Audit System	Transfer Articulation Module				1	$15,000	$15,000			
42.00	Campus Information System										
42.10		KIOSK-New				4	$6,510	$26,040	2	$13,020	
42.20		INTOUCH				1	$25,000	$25,000			
43.00	Campus E-Mail System	E-Mail/Calendaring						$30,000			
50.00	Human Resource System	Imaging								$90,000	
51.00	Voice Response System	Expand to 32 lines								$20,000	
	Total Administrative Computing				**$6,000**			**$178,247**		**$205,920**	

Networking & Central Computing

Item No.	Area	Description	– Replacement Systems – Qty	Unit Price	Capital	—— New Systems —— Qty	Unit Price	Capital	Defer Qty	Capital	Prio
60.00	**IBM Mainframe**										
60.00	3380 Disk system	3-IBM 9345 disks	3	$25,000	$75,000				9	$225,000	
61.00	New Applications	2-IBM 9345 disks				2	$25,000	$50,000			
62.00	Expand Tape Capacity	3480 Tape Compression						$15,000			
63.00	Channel Capacity	Escon Channels	4	$20,000					4	$80,000	
70.00	**Networking*****										
	Total Networking & Central Computing				**$75,000**			**$65,000**		**$225,000**	
	*****To be funded from the Telecommunications Plan										

FY95 Information Technology Budget Summary

Area	– Replacement Systems – Qty	Operating	Capital	—— New Systems —— Qty	Operating	Capital	Defer Qty	Capital
Academic Computing	408	$31,404	$785,100	219	$31,721	$793,100	300	$901,100
Administrative Computing		$600	$6,000		$17,825	$178,247		$205,920
Networking & Central Computing		$7,500	$75,000		$6,500	$65,000		$225,000
Total Budget		**$39,504**	**$866,100**		**$56,049**	**$1,036,347**		**$1,332,020**

FY95 Information Technology Financial Summary

Description	Revenue	Percentage	Total
Revenues			
FY94 Technology Fee	$660,000	100%	$660,000
FY95 Technology Fee	$760,000	80%	$608,000
FY94 Computer Plan Carryover			$200,000
FY95 Financial Plan			$400,000
FY95 New Initiatives			$30,000
FY95 Advanced Technology			$100,000
Total Revenues			**$1,998,000**
	Operating	**Capital**	
Expenditures			
Academic Computing	$63,128	$1,578,200	$1,641,328
Administrative Computing	$18,425	$184,247	$202,672
Networking & Central Computing	$14,000	$140,000	$154,000
Total Expenditures	**$95,553**	**$1,902,447**	**$1,998,000**
Revenues - Expenditures			**$0**

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